Co-Designing Cities

Designers as enablers of community-driven change by participatory means in the urban context

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Aalto University
School of Arts, Design and Architecture

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Abstract

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In the 21st century, design has expanded in scope and become applied as an approach to developing more human-centered and sustainable solutions, environments and strategies in the urban context, with multidisciplinary collaboration recognized as a precondition for addressing complex societal issues. Simultaneously, the progress of technology and emergence of social media have enabled citizens to become central actors, who collectively and proactively contribute to the development of cities through self-organized action. In the thesis, this transition is examined from the point of view of a designer, with the aim to explore and discover the potential roles that a designer might adopt to catalyze sustainable change in the urban context by means of co-design. With sustainability as the newly adopted, ultimate goal in all design activity, it is proposed that harnessing citizens as a resource in co-developing solutions and environments in cities by means of participation can induce broad positive impact that extends beyond improving the quality of design outcomes.

The thesis topic is approached through two distinct sections: a theoretical study and a case study. A literature review and expert interviews are conducted to first establish a comprehensive understanding on three subject matters: design in contemporary society and cities; participation in design; and citizen participation in the urban context. In the case study, observations obtained through a fieldwork period in 2017-2018 on Konepaja are elaborated and analyzed. Located in a rapidly transforming industrial milieu in Vallila, Helsinki, Konepaja is a former train carriage workshop that operated for a century before the operations were shut down in 2003. In the recent years, the neglected site has become known for distinctive urban culture stemming from the grass root level. The community members of Konepaja are identified as key actors in developing the area through a bottom-up directed process, that can amplify the existing assets and potential of the site. The focus is on exploring how the shared future vision of Konepaja could potentially be achieved by means of co-design, and what roles a designer can adopt in the process. The aim is to propose how conditions might be established for the community to mobilize and sustain a bottom-up directed development process autonomously, and thus contribute to developing Konepaja into a socially sustainable and vibrant urban area.

Through the study, it is discovered that high quality participation can induce various positive implications, with the most notable benefits being social. Enabling participation throughout the development process can lead to a transformation within individuals and communities themselves, including empowerment, increase in social capital, a stronger sense of community, and commitment to change. By approaching a development process with a participatory mindset, the process can become a platform for the community to assemble, collaborate, and mobilize to take concrete, collective action. Thus, by facilitating and enabling a participatory process, a designer can enable harnessing the community as an invaluable resource and a transformative force, potentially catalyzing broader positive change within the community, urban area and even in the city scale.

Tiivistelmä

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2000-luvun yhteiskunnallisessa muutoksessa muotoilun kenttä on muuttunut ja laajentunut voimakkaasti. Yksi uusista sovelluskohteista on kaupungit, joissa muotoilun lähestymistapaa on alettu soveltamaan kestävien ja ihmislähtöisten ratkaisujen, ympäristöjen ja kauaskantoisten strategioiden suunnittelemiseksi, ja joissa monialainen yhteistyö on tunnistettu edellytykseksi monimutkaisten ongelmien ratkaisemiseksi. Samalla teknologian kehitys ja sosiaalinen media ovat mahdollistaneet kaupunkilaisten ja yhteisöjen aktivoitumisen keskeisinä toimijoina kaupunkien kehityksessä itseorganisoitumisen keinoin. Opinnäytetyön tavoitteina on tarkastella tätä muutosta muotoilijan näkökulmasta sekä tutkia niitä mahdollisia rooleja, joita muotoilija voi omaksua kaupunkiympäristöjen kehittämisessä yhteissuunnittelun menetelmiä hyödyntäen. Keskeisin muotoilun tehtävä nyky-yhteiskunnassa on edistää kestävää kehitystä ja suunnitella siten myös sosiaalisesti kestäviä ratkaisuja, minkä mahdollistamisessa yhteissuunnittelu sekä kaupunkilaisten osallistaminen ja valjastaminen muutosvoimana ovat avainasemassa. Muotoilijan rooli nähdään kaupunkilaisten osallistamisen ja kaupunkien kestävän yhteissuunnittelun mahdollistajana, sekä mahdollisena katalyyttina laajemmille vaikutuksille, joita osallistamisen keinoin voidaan saavuttaa.

Opinnäytetyössä aihetta käsitellään teoreettisen tutkimuksen sekä tapausesimerkin kautta. Kirjallisuuskatsauksen ja ammattilaishaastattelujen keinoin luodaan ensin kokonaisvaltainen ymmärrys kolmesta eri aihealueesta: muotoilu nyky-yhteiskunnassa ja kaupunkikontekstissa, osallistaminen muotoilussa, sekä kaupunkilaisten osallistaminen kaupungeissa. Tapaustutkimuksessa tarkastellaan Konepajaa, Helsingin Vallilassa sijaitsevaa entistä Valtionrautateiden vaunukonepajaa, vuosien 2017-2018 aikana toteutetun kenttätutkimuksen avulla kerättyjä havaintoja analysoimalla. Alkuperäisen toiminnan päätyttyä vuonna 2003 pitkään tyhjillään olleisiin rakennuksiin on viime vuosina kehkeytynyt ruohonjuuritason toimintaa, jonka avulla alueelle on virinnyt uusia kaupunkikulttuuria ja omaleimaista paikkaidentiteettiä kehittäviä toimintoja ja väliaikaiskäyttöjä. Kenttätutkimuksessa Konepajan yhteisön jäsenet tunnistetaan merkittävinä toimijoina alueen tulevaisuuden käyttöjen ja kehitysprosessin suunnan määrittämisessä sekä sosiaalisesti kestävän, alhaalta ylöspäin suuntautuvan kehitysprosessin vetureina. Analyysiosiossa tarkastellaan, miten Konepajan tulevaisuuden kehitystä voisi lähestyä yhteissuunnittelun menetelmin ja miten muotoilija voisi osaamisellaan myötävaikuttaa alueen kestävään ja olemassa olevia vahvuuksia voimistavaan tulevaisuuskehitykseen. Pääpaino tarkastelussa on alueen toimijoiden roolissa muutosprosessin alullepanijoina ja ylläpitäjinä, joiden avulla Konepajasta voidaan kehittää yhteisiä tulevaisuusvisioita vastaava, elinvoimainen kaupunkikulttuurin keskus.

Opinnäytetyön tutkimuksen kautta osoitetaan, että korkeatasoisella osallistamisella ja yhteissuunnittelulla voidaan synnyttää laajojakin kokonaisvaikutuksia sekä ympäristössä että yhteisöjen sisäisesti, joista huomattavimmat ovat sosiaalisia. Mahdollistamalla kaupunkilaisten korkeatasoisen ja jatkuvan osallistamisen koko kehitysprosessin ajan yhteisön jäsenet voidaan sitouttaa muutosprosesseihin voimaannuttamalla, yhteisöllisyyttä voidaan parantaa sekä yhteisön toimijoiden välisiä suhteita vahvistaa. Lähestymällä kehitysprosessia osallistavasta näkökulmasta yhteissuunnitteluprosessi voi toimia alustana yhteisön järjestäytymiselle, yhteistyölle ja konkreettisen toiminnan mobilisoinnille. Muotoilijan rooli yhteissuunnittelun fasilitoijana ja mahdollistajana voi johtaa yhteisön valjastamiseen resurssina ja muutosvoimana kaupungeissa. Tämä voi puolestaan mahdollistaa kestävän muutoksen ja kehityksen niin yhteisön sisäisesti, kaupunkiympäristössä kuin mahdollisesti myös koko kaupungin mittakaavassa.

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This thesis would not have been possible to conduct without the contribution of various people, who have helped shape this work over the two years. First of all, I want to thank Pablo Riquelme for advising this thesis throughout the long process, for initiating the case study project on Konepaja in 2017, and for encouraging me to follow my intuition. Also, thank you Mirja Niemelä for providing help in academic writing and in formulating the structure of the thesis, Antti Pirinen for the comments and advice on the content, and Pentti Kareoja for supervision.

I cannot stress enough the significance of the contribution provided by the number of people who took the time to inform, inspire and advise the thesis study during the two-year-long process. Especially, I want acknowledge Sara Ikävalko, Henna Helander, Inari Virkkala, Sofia de Vocht, Stuba Nikula, Parviainen Architects and Matti Lucie Arentz for the conducted interviews, that all inspired and contributed to shaping the direction and point of view for the thesis. Furthermore, I want to thank the entrepreneurs of Konepaja, especially Mika Ihanus and Eero Manninen, for persistently taking the time to discuss and answer all the hundreds of my questions, and letting me accompany you in your meetings. Also, I want to thank Jaakko Blomberg and Bruce Oreck for the shared discussions about Konepaja that helped inform the fieldwork study.

While the thesis process has been educational and rewarding, it has also been long and demanding. There are a number of people in my life who have helped smoothen the rocky process, and without whom this journey would have been significantly more difficult. First of all, thank you Harri for keeping my eyes on the road at all times (and kicking me in the butt when it was in order). Thank you to those friends - especially Emilia and Tea - who accompanied me and provided much-needed peer support. The moments shared with you at the library made the process much more fun. To all the additional friends, family and colleagues who have helped me in any way: thank you for your encouraging words, support, understanding and love, as it has all helped me get to this point.

Contents

1

Introduction

1.1 THESIS TOPIC INTRODUCTION

This thesis is a theoretical study of the transformed roles of a designer in the contemporary society, and the means for a designer to induce positive impact by means of participation and co-design in the urban context. Over the past century, design, both as a profession and an approach, has undergone an immense transformation: in addition to providing form for tangible and intangible products, design is today increasingly affiliated with abstract problem solving (Kimbell 2011), and even generating societal change (Brown & Wyatt 2010). With sustainability as the newly adopted, ultimate goal (Fuad-Luke 2009), design has expanded in scope and become applied to solve complex, systemic and open-ended challenges in various contexts, ultimately in cities. As global issues such as urbanization and climate change have led design to become applied as an approach to generate solutions to social, environmental and economic challenges (Ibid,), also the number of actors in a design process has grown, with multidisciplinary collaboration and participation of stakeholders perceived as preconditions to solving complex problems (Sanders & Stappers 2012). This has further led to the changing of not only the dynamics between actors in a design process, but also the purposes and means involved with participation, and even design in general (Ibid.). While the value premise of participatory design builds on the aims of democratizing decision-making processes and improving the appropriateness of the end results (Ehn 2008), participation and co-design are today recognized as means to generate a number of other types of impacts as well, including social implications on the individuals and communities who take part in participatory processes (Sanoff 2008). In the context of cities, the progress of technology and the emergence of social media in the 21st century have generated new channels for direct participation, where citizens are actively involved and engaged in deliberative decision-making, and also assembling to collectively take action without intermediaries (Mäenpää & Faehnle 2016). Bottom-up directed self-organization and urban activism, enabled by social media, have become forms of direct participation in cities, with citizens actively and collectively contributing to shaping their own living environments (Mäenpää & Faehnle 2016). This type of citizen-initiated participation, where the community acts as a catalyst for a broader change in the urban context, is recognized in the thesis as an invaluable resource that might be harnessed to its full potential by means of co-design. By contemplating the potential, expanded roles a designer might adopt in participatory, change-oriented processes, this thesis poses a further question: could a co-design process become a platform for a broader positive change within communities and cities, and a designer thus an enabler of that change?

The introduced, broad topic is approached from the point of view of a designer, with the aims to explore shifted actor dynamics in design process, to expand the conventional perceptions of the roles that designers can adopt in the context of contemporary cities, and to discover the implications that high quality participation can ultimately induce in the urban context. The study comprises two distinct parts: a theoretical study, and a case study. Based on a thorough literature review and expert interviews, the comprehensive theoretical premise for the thesis is first built on three distinct subject matters: the transformed role of designers in addressing complex issues in the urban context; the purposes and practices entailed in participatory design and co-design as an approach and a mindset; and finally, the means for citizens to create an impact on the development of their shared urban environment in the context of Helsinki. With the aim to demonstrate the theory findings and provide a more practical angle to the subject, the second part of the thesis entails a case study of Konepaja, a former train workshop built at the turn of the 20th century, located in the neighborhood of Vallila, Helsinki. In the case study, findings and observations obtained during a fieldwork period conducted in 2017-2018 are elaborated and reflected on, with the potential direction for future development for Konepaja approached and analyzed in light of the conclusions based on both the fieldwork and the theoretical study. Derived from the thesis process,

the community of Konepaja is identified as an invaluable resource and a transformative force, with potential to contribute to developing Konepaja into a distinctive and vibrant urban area in a sustained, community-driven, bottom-up directed process. In the results, the potential roles for a designer to adopt in guiding a hypothetical, community-driven development process of Konepaja are proposed and elaborated. By approaching the topic from multiple perspectives, knowledge is generated on the subject matters of urban design, co-design and participation in the urban context, from the human-centered point of view of a designer. Ultimately, there are two main goals that are pursued in the thesis: firstly, to provide relevant knowledge on the potential utilization of design and participatory design practices in the urban context for both designers and cities; and secondly, to take part in the discussion regarding the responsibility, purposes and roles affiliated with professional designers, and to contemplate the possibilities for designers to contribute to the development of genuinely sustainable societies and cities of the future by means of co-design.

1.2 BACKGROUND & PROCESS

This thesis is first and foremost an attempt to position myself professionally in the transforming and persistently expanding world of design, where striving for sustainability in various domains has become a fundamental and urgent mission shared by different disciplines. Stemming from a personal interest that combines sustainable design with cities and urban environments, the thesis entails an open-ended, immersive process that aims to find out how a designer, such as myself, could potentially contribute to developing more sustainable cities in the midst of immense ecological and social challenges. With a background in interior architecture and design, and a minor degree programme completed in 2016-2017 in Urban Academy, a joint study programme between Aalto University and the University of Helsinki, it was clear from the very beginning that the thesis would be pursued on a topic that combines these two distinct yet entwined worlds. As I learned during the thesis process, design has only been recognized as a prominent approach that can create value in the urban context in various ways within the past decade (Ikävalko 16.11.2018). Thus, it appears that there is yet relatively little amount of experience and research generated internationally about the potential implications that design can induce in the urban context, which was perceived simultaneously both as a challenge and an opportunity for further examination. Discussing the concept of participation was not the initial starting point of this thesis but, as it will be elaborated in the theoretical study, participation and co-design were soon found to be critical in conducting design projects in the urban context. This realization derived from the theoretical study eventually led to shifting the focus of the thesis altogether to co-design and participation in the urban context, and the roles that a designer might adopt in conducting a participatory design process together with citizens. The learning process that led to this end result started already in 2016, when I was intensely following the public debate that had stirred regarding the ownership of Konepaja, a neglected industrial site in Helsinki that had over the years become a premise for grassroot urban culture. In 2016, it was exposed by the media that the former owner of the site, the national railway company VR, was discreetly planning to sell the original, invaluable red brick buildings to a private hardware store chain, with plans to convert the buildings into commercial and parking spaces (Nissinen 2016). The piece of news stirred an uproar among citizens of Helsinki, causing a strong public reaction against the proposed plans (Koivisto & Rita 2016), eventually leading to the plans being revoked (Parkkinen 2017). The reasons that led me to eventually pursue to find a way to become involved with Konepaja as a subject of my thesis included the personally recognized potential that Konepaja as a historically and architecturally unique milieu possesses for future development, and the will to contribute to restoring and amplifying the distinctive urban culture that had been sparked in the area.

During the two years of actively working on this thesis, the topic was changed midway due to unforeseen changes in circumstances. The thesis process initially began in fall 2017 as a collaborative

project with entrepreneurs working at the premises of Konepaja, with the aim to produce a concept plan for the area that would be used to potentially attract investment and actors interested in realizing the concept. The topic was initiated by the advisor of this thesis, Pablo Riquelme, who helped me get in touch with the entrepreneurs and thus get involved in the project. My role in the group, as a designer and thesis worker, was initially to conduct research on the area and the context, to contribute to the concept plan with my expertise as a member of the group, and to produce relevant visual material that would help market the concept plan. However, in November 2017, a sudden turn of events occurred: Bruce Oreck, a private investor and former ambassador of the United States, announced that he was planning to buy the most prominent buildings of the site (Varmavuori 2017). While the vision of Oreck appeared to be aligned with that of the entrepreneurs, the collaborative project was eventually cancelled in spring 2018 due to prolonged negotiations regarding the ownership of the buildings, as well as the fact that the new owner showed no interest in further collaboration. As fieldwork for the thesis had already been conducted for nearly a year at that point, I decided to use the findings derived from the process to readjust the thesis topic, and to spend an additional year working on the theoretical part of the thesis (Figure 1). Eventually, what had initially begun as a production-based piece of work became a theoretical thesis, with the focus shifted to the two most intriguing and pivotal observations derived during the fieldwork process. The first of these observations was that the community of Konepaja had acted both as an initiator of change in the area through grassroot activity, and as a powerful force in steering the prolonged negotiation processes over the ownership of the buildings in 2016 and 2018. The second pivotal observation concerned my own, presumed role as a designer in the concept development process. Even though the initial project was intended as a collaboration with one of the most central actor groups in Konepaja, during the fieldwork it became clear to me that the development process should be conducted in a more open-ended manner, and in a way that takes into consideration

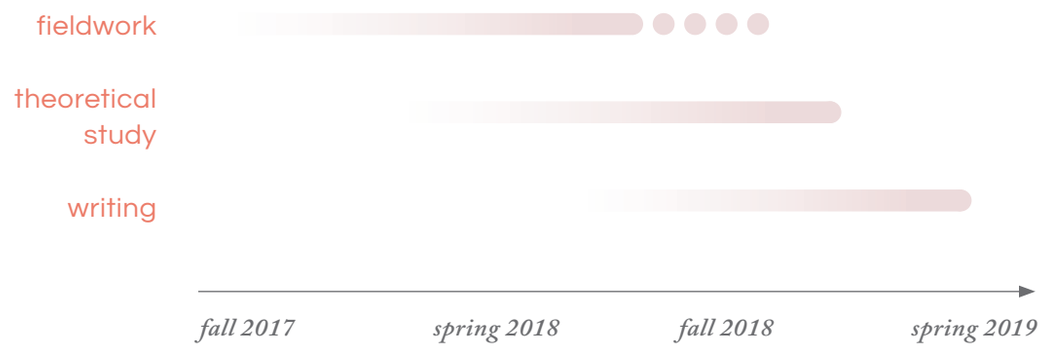

Figure 1: The thesis process

the needs and interests of all relevant actor groups, not just one of them. In the end, the findings as well as the obstacles encountered in the thesis process liberated me to approach the potential development of the area from a broader and more objective perspective, where multiple relevant interest groups were considered. While the process was non-linear and challenging in every way possible, the decision to readjust the thesis topic and follow my intuition towards conducting a thorough theoretical study eventually led the thesis to provide an opportunity for me to immerse in a subject of deep personal interest, and to obtain a whole new perspective on my profession.

1.3 RESEARCH QUESTIONS & OBJECTIVES

This thesis aims to take part in the discussion regarding a designer's present and future roles in the contemporary society and in the context of cities through a theoretical approach, and by applying and demonstrating the theoretical findings on the case study of Konepaja. The main focus is on generating a comprehensive understanding of the potential roles that a designer can adopt in the urban context to contribute to the development of socially sustainable cities, and thus in conducting participatory design processes together with communities. As it is acknowledged that this objective is very broad in scope, the theoretical review will be approached from multiple different angles, with the goal to attain a holistic understanding of the subjects of participation and design in the context of cities. As the subjects of urban design and the development of cities are approached from the perspective of a designer, the official development processes of urban planning are framed out of the scope of the thesis. Moreover, while the thesis aims to link the theory to practice by applying the knowledge generated about participation and co-design through the theoretical study on the particularly defined case study, the methods of participation are examined at a general level for the sake of framing. This means that the practical tools and techniques involved in co-design, such as activities and tools that may be used to obtain information from stakeholders, are not examined in

detail. Academically, the thesis aims not to provide any definitive answers regarding the roles of a designer, but rather to provoke discussion and pose questions for further research that may be conducted on the topic. The thesis strives for scrutinizing design in the context of contemporary society and cities in a holistic manner and from a critical point of view, and to generate relevant, current and accurate knowledge that can be utilized also in further research by designers, and potentially even by cities. In addition to the academic goals set for the study, there are two personal, professional aims: the first one is to gain a thorough understanding of the purposes, means and implications of practicing participation and design in the context of cities, and the second one is to find my own personal voice and point of view as a professional designer.

There are four research questions that the thesis aims to provide answers to. The questions are successive, meaning that forming an answer to each question requires answering the previous ones. The research questions are the following (Figure 2):

1. How has design as an approach and profession changed in becoming applied in the urban context?

2. What are the key purposes, practices and methods affiliated with participation?

3. What roles can a designer adopt in a co-design process?

4. How might a designer aid a community-driven participatory development process in the case of Konepaja?

The first three questions guide the theoretical study part of the thesis, with the goal of establishing a thorough understanding of the thesis topic based on research and experiences of professional designers and multidisciplinary scholars. The first question aims to define design as an approach and profession in the context of 21st century societies and cities in a broad scope; the second question immerses in participation at a general level, with the aim

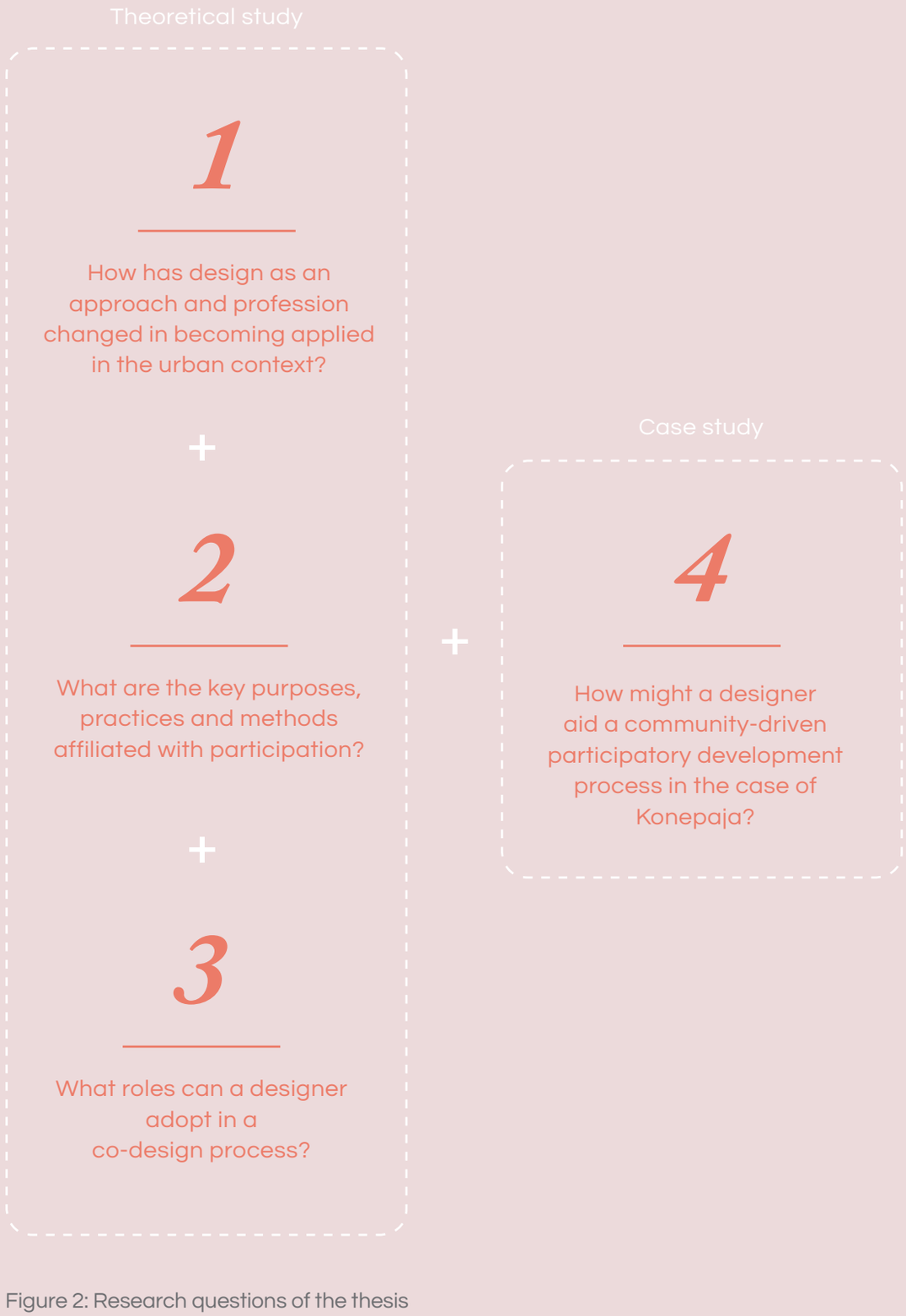

Figure 2: Research questions of the thesis

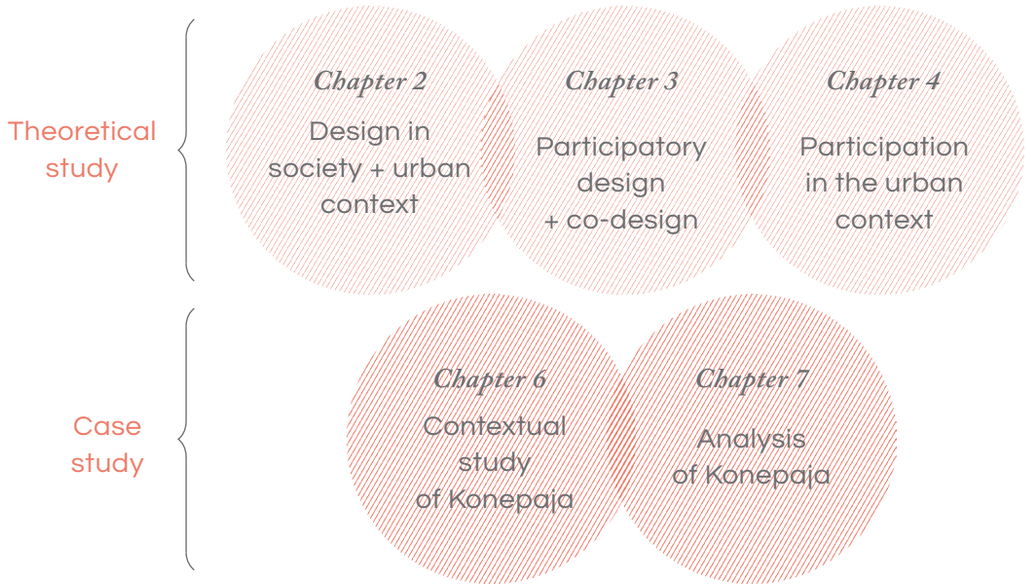

Figure 3: The structure of the thesis

to understand the value premise, principles and practices that guide participation as a concept, both in design and in the context of cities; and the third question deepens this knowledge of participation, further scrutinizing the potential roles that a designer can adopt in a co-design process in order to achieve the goals and purposes established in answering the previous question. Finally, the knowledge generated in the theoretical study is applied on the case study of Konepaja, where the hypothetical development process is approached as a case of co-design and from the perspective of a designer. Thus, the study aims to zoom in from first obtaining a general understanding of the topic in a broad scope, to ultimately applying the generated knowledge and findings on a specific case study at a more practical level.

The thesis comprises two distinct sections: theoretical study, and case study (Figure 3). With the aim to answer the first three of the four research questions, the theoretical study is conducted on three different topics. The first examined subject matter is the transformation of design profession that has led design to become applied in the urban context, and urban design as a newly emerged design discipline. The second theory chapter immerses in participatory design and co-design as a mindset and approach to conducting a design process, and the transformed and expanded roles of a designer and user in a co-design process. In the third theory chapter, participation is examined in the context of cities, where the possibilities and channels for citizens to participate in shaping urban environments in the context of Helsinki are discussed, along with the potential, broader implications of community participation. In the second part of the thesis, the case study is divided into two separate sections. In the first case study chapter, Konepaja as an area is studied from a more objective perspective, with the current contextual setting and the past history of the area examined and discussed. In the latter case study chapter, the findings derived from the fieldwork regarding the community of Konepaja and the potential future of the area are analyzed. The research questions are answered in the conclusions chapter of the thesis.

1.4 SELECTED METHODS OF RESEARCH

There are three main methods that have been selected to conduct the study (Figure 4). The first is a thorough literature review, where relevant literature and articles have been reviewed in a broad range to establish a holistic understanding of the subject matters discussed in the thesis. The second method is expert interviews, with several professionals interviewed for the thesis to provide relevant and practical knowledge from their professional perspectives that complement the literature review. The third method is the fieldwork conducted at Konepaja and observations obtained during the fieldwork, which also included a thorough desktop study. In addition to the aforementioned methods, also several seminars, lectures and events have been attended in 2017-2019, that have contributed to shaping this thesis in the form of inspiration. These events include but are not limited to the following: Nordic Urban Laboratory, an international three-day seminar on cultural urban development organized in March, 2018; the kick off event of the model of citizen participation and interaction organized by the city of Helsinki in May, 2018; and Climate Changes in the City, a discussion event on participatory urban planning hosted by Pixelache Helsinki in November, 2018. Participating at the events on the topics of participation and urban development enabled linking the thesis to current and relevant topics of discussion, and getting multiple perspectives and validation on the thesis subject and findings already during the process through discussions conducted with different professionals.

LITERATURE

The foundation of the theoretical study was formed by conducting a comprehensive and thorough literature review on various subjects, that enabled shaping the theoretical perspective for the thesis. While the range of literature and articles reviewed for the thesis is broad in scope and there are several pieces of work that have been significant for the theoretical study, three pieces of literature emerge as the most influential in shaping the point of view and

the theoretical basis of the thesis. In the first theory chapter, the most influential piece of work was the book Design Activism by author Alastair Fuad-Luke (2009), which provided a critical and comprehensive stance on the role of design in contemporary society. In the book, the author proposes that designers should adopt an activist mindset in order to contribute to addressing the immediate ecological, social and economic crises, supporting the claim by a vast amount of information and data regarding the unsustainable state of the contemporary world (Ibid.). The book helped build the starting point and perspective for the theoretical study of the thesis, where sustainability is established as the main goal that should guide all design activity, and co-design as one of the most important means to achieve this goal. In the second theory chapter, the most important piece of literature that helped establish a thorough and practical understanding of participation in the design context was the book Convivial Toolbox by Elizabeth Sanders and Pieter Jan Stappers (2012). The book was found to be easily understandable and approachable, as it provided a very practical, hands-on perspective on the methods of conducting a co-design process, as well as the roles that a designer can adopt in that process. As a pioneer in participatory design and co-design, the work of Sanders (1992; 2002) from different years were overall found influential, as her books and articles have been referenced by multiple other scholars as well. Finally, the article Multiple Views on Participatory Design written by a pioneer on community participation, Henry Sanoff (2008) provided the premise for the third and last theory chapter, where the purposes and implications of community participation in the urban context are elaborated. The work by Sanoff ultimately led to discovering and discussing the multitude of social implications that may be induced through participation in the context of urban environments in the thesis. Besides the aforementioned pieces of literature, the multiple viewpoints provided by various other authors on the topics including co-design and participation (e.g. Mattelmäki & Sleeswijk Visser 2011) and self-organization in the urban development (e.g. Boonstra & Boelens 2011) contributed to shaping the theoretical study.

Figure 4: The main methods of research

INTERVIEWS

To complement the literature review, three qualitative interviews were conducted with different professionals, whose points of view, practical case examples and feedback significantly contributed to shaping the perspective and content of the thesis. The interviews were conducted in an open-ended and conversational manner, meaning that no strict question structure was followed. The first one of these interviews was conducted with the advisor of the thesis, urban designer and lecturer at Aalto University, Pablo Riquelme (28.11.2018), whose expertise and experiences in urban design and designing for the public sector have helped build the topic of the thesis from the very beginning. The focus in the formal interview was in Riquelme's experiences and approach to the design process when designing together with communities in the urban context. The second one of the key interviews was conducted with Sara Ikävalko (16.11.2018), an urban designer and service designer who is also currently the head teacher of the new urban design study programme at Lahti University of Applied Sciences. As the very first urban designer in Finland (Ibid.), Ikävalko has witnessed how design has become applied in the urban context nationally from the very beginning. Her experiences and expertise in conducting participatory design projects in various cities over the past decade were the focus of the conducted interview. Additionally, Ikävalko's lecture on urban design at City Service Design event in March 2019 (27.3.2019) has also been used as a source in this thesis. The third main interview was conducted with architect Henna Helander (3.12.2018) who currently works as the president of Finnish Association of Architects SAFA, and has also several years of experience in working for the city of Helsinki as a leading expert in architecture. The main aim of the interview conducted with Helander was to understand her point of view, as an architect and a leading expert in the city of Helsinki, on conducting participatory processes in urban development projects. Furthermore, the subjects of potential future of Konepaja, and the role of grassroot activity in shaping urban environments

were discussed from her point of view. The interviews helped establish an understanding of urban design, participation and the processes involved from several perspectives at a more practical level, and also obtain knowledge on the experienced challenges and implications that participation might induce in the context of Helsinki and Finland.

FIELDWORK & OBSERVATIONS

Over the course of a year from fall 2017 to fall 2018, fieldwork was conducted for the thesis for research and inspiration purposes. The fieldwork included discussing and working together with several entrepreneurs of Konepaja on location, attending their internal meetings, participating at public discussion events regarding the future of Konepaja, and discussing with various stakeholders. The observations and informal discussions conducted during the fieldwork with several stakeholders of Konepaja helped form a thorough understanding of the interests of different actor groups regarding the desired future for the site, as well as to identify the most central actors in the community. During the fieldwork, three public discussion events organized at Konepaja were attended. The first one took place at Konepajan Bruno on November 16, 2017, where Bruce Oreck held a public discussion event regarding his initial plans for the development of Konepaja. The second event was organized by the city of Helsinki on October 4, 2018, where the mayor of Helsinki addressed issues brought forth by local residents regarding the current state and future development of the area and its services. Finally, the third event took place on November 21, 2018, where questions regarding the ongoing progress and current issues of the site development were addressed by Oreck, local activists of Konepaja-liike as well as developers of the new residential and office buildings constructed in the area. Additionally, an essential part of the field work was to conduct informal conversations and interviews with multiple people who have either been directly involved with the development of Konepaja, or whose points of view were regarded relevant concerning the potential development direction for the area. Among these people were Bruce Oreck, the new owner of the largest building complex at Konepaja; Jaakko Blomberg, an urban activist and one of the lead figures of Konepaja-liike; Inari Virkkala and Sofia de Vocht, architects who have formerly been involved with the development of an alternative concept plan for Konepaja area; Parviainen Architects, an architecture firm that held a workshop regarding the public space development of Konepaja with various stakeholders in September 2018; Stuba Nikula, who worked as the cultural director of the city of Helsinki at the time of the interview in spring 2018, and shared his points of view regarding the potential development of Konepaja; and Mika Ihanus and Eero Manninen, entrepreneurs who worked at the premises of Konepaja at the time of the fieldwork period. The discussions conducted with the aforementioned, multidisciplinary professionals helped gain a thorough understanding of the actors involved in the development of Konepaja, and their interests regarding the future site development. Additionally, media coverage about Konepaja was attentively followed regarding the negotiation and development process throughout the fieldwork. The overall aim of the fieldwork was to establish a comprehensive understanding of Konepaja as an entity: its present state, past and potential future, as well as the key actors involved in the site development. In the second part of the case study, the fieldwork process is reflected on in retrospective, with derived findings analyzed and utilized to identify the most relevant actors in the area, and define a hypothetical direction for potential future development of Konepaja.

PART I

Theoretical Review

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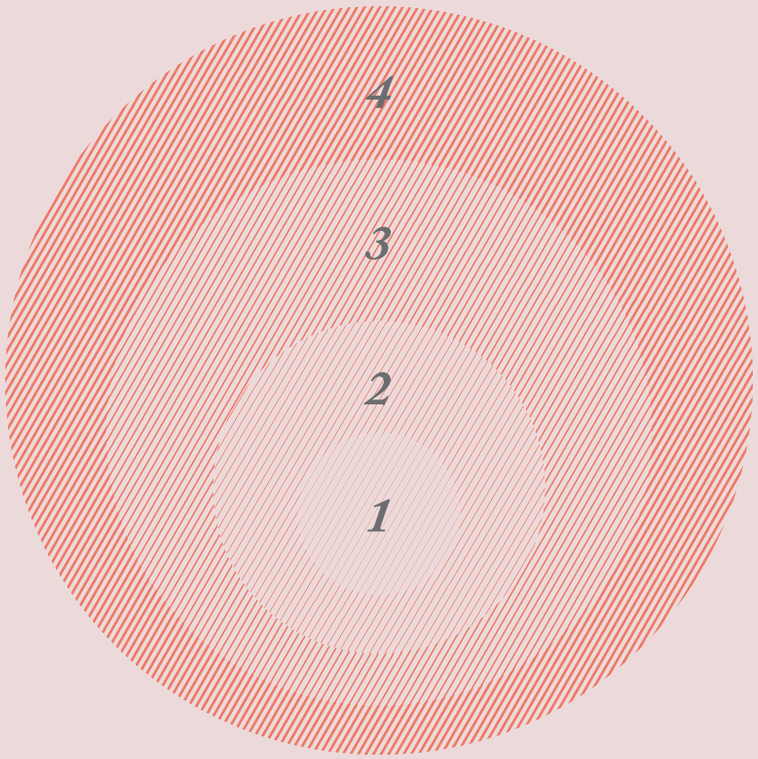
Everyone designs who devises courses of action aimed at changing existing situations, into preferred ones.

Herbert Simon
as referenced by Fuad-Luke 2009, 4



1. Design of features
2. Design of client experience
3. Design of processes & systems
4. Design of strategy, philosophy, policy, ideology

Figure 5: Levels of design
Based on Moritz 2005, 33

2

From designing products to co-designing cities

2.1 DESIGN IN EVOLVING SOCIETY

Design as a term, practice and profession is in a constant flux, as it is inseparably bound to the progress and transformation in the surrounding societal context. This means that the relationship between design and the state of the society is a dynamic one, as societal values, needs and attitudes affect design as a practice and, in turn, the outcomes of design reciprocally shape the surrounding society. The inextricable link between design and the society is elaborated by Tikka and Gävert (2018, 10) with the following statement: "Design never happens in a vacuum. Design, as all humane actions, always have either direct or indirect ideological starting points as well as real consequences that are reflected in the surrounding world. Good design is very conscious about these backgrounds and its own impact". Even though design as a practice is, still today, generally associated with the physical form of things (Kimbell 2011, 290), the increased level of complexity in the surrounding society has led design to gain novel dimensions and change its ideological value premise. Gradually over time, design has become applied as an approach to tackle complex societal challenges (Brown & Wyatt 2010), with its sphere of impact today extending from developing detailed objects to complex systems (Joore & Brezet 2014, 1). Today, design and its principles are applied on a multitude of different domains and in different scales (Figure 5), from the design of products and services to strategies and philosophies (Moritz 2005, 33), and even to shaping urban policies (Berglund 2013, 197). Kimbell (2011, 291) detects a duality in contemporary design (Figure 6): while design is still concerned with making objects, it is also affiliated with abstract problem-solving and creating a "desired state of affairs". Thus, design is strongly affiliated with change (Moritz 2005, 35) as it is concerned with the question "what ought to be" instead of "what is" (Kimbell 2011, 290). Fuad-Luke (2009, 5) has argued that "design is an act of deliberately moving from an existing situation to a preferred one by professional designers or others applying design knowingly or unknowingly". Therefore, it becomes evident that in order to understand the underlying

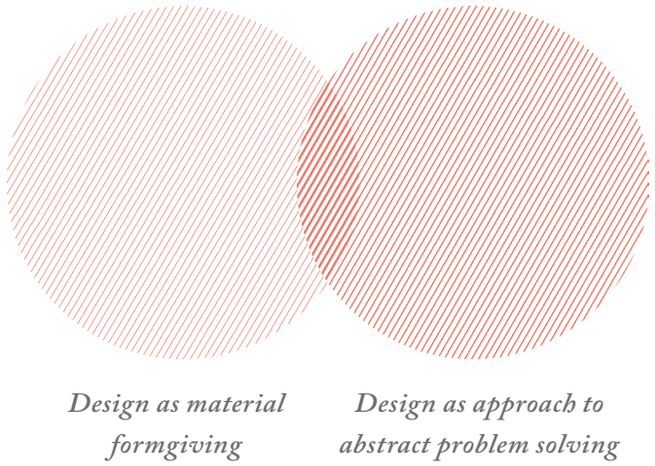


Figure 6: Duality in design
Based on Kimbell 2011, 291

values guiding the design profession today, it is also required to examine the state of the contemporary society - and, furthermore, what is the desired change and future that is pursued by means of design.

Over the past century, design as a profession has changed immensely as a reaction to the changes that have occurred in the surrounding world. The 1950's marked the rise of consumer culture that led professional designers to focus on serving the needs of industrial manufacturing and production (Sanders & Stappers 2012, 16). Throughout the previous century, the ultimate aim of design was generally perceived to be to produce commercial value and revenue for companies (Tikka & Gävert 2018, 10), and to satisfy the needs of those companies by providing differentiation, innovation, durability and aesthetical qualities in the products and services designed for them (Press & Cooper 2003, 163). It was the task of designers "to get people to buy the products and services of companies as much as possible, as often as possible, and at an as expensive price as possible - not being concerned about the societal and environmental problems regarding products or businesses" (Tikka & Gävert 2018, 10). However, as the new century has progressed, the society has undergone an immense transformation in a number of ways: the technological progress has irreversibly transformed the way people live, work and consume (Thackara 2005), and the ecological state of the world has been driven to an alarming condition by unsustainable practices and rates of consumption and production (Fuad-Luke 2009, 67). The global environmental crises, including the warming of the climate, the decline of the biodiversity and the depletion of diminishing natural resources (Ibid.), are shaking the entire capitalist economic premise that is grounded on the assumption of infinite growth (Ibid., 23). Thus, the prevailing societal priorities are being urged to drastically change to steer the course of the current, unsustainable development, as elaborated by Tikka and Gävert (2018, 10-11):

> In the second decade of the 21st century, it is clear that each business is part of the society and their own operational environment through complex and often global chains of influence. The economic models of the previous century and the principles of yesterday's design derived from those models will not as such have future in this century. The current times require new kinds of thoughts that will help companies, people, the society and the environment to cope with the situations and challenges of both the present and the future. The new wave of design that looks forward to the future thus needs to be based on strong and responsible values that place the common, continuous wellbeing - whether regarding people, living beings or non-living things - as the ambition of all activity.

Therefore, it can be derived that the described shift of societal priorities from economic growth towards sustainability has consequently a fundamental impact on design as a practice, and thus also the value base that guides all actions and purposes of design.

2.2 THE REDEFINED MINDSET OF DESIGN

SUSTAINABILITY AS THE GUIDING VALUE

As a reaction to the changes in priorities and the increased level of complexity in the challenges that are faced today by societies globally, the underlying values and goals guiding the design profession are being reformed. Fuad-Luke (2009, 20) suggests that designers have adopted sustainability as the "meta-challenge" of the profession, denoting an overarching objective that unites various design disciplines. An intricate societal challenge, such as sustainability, is often referred to as a wicked problem (e.g. Fuad-Luke 2009, 142), which can be understood as a "complex situation that cannot be reduced and analyzed with the techniques of classical problem solving and decision making" (Jones 2014, 3). In other words, a wicked problem is a complex, ill-defined issue with multiple interconnected factors and actors involved, which makes the issue difficult or even impossible to solve (Fuad-Luke 2009, 142; Sanders & Stappers 2012, 22). Over the course of the 21st century,

> *Eighty percent of the environmental impact of the products, services, and infrastructures around us is determined at the design stage.*
>
> Thackara 2005, 1

designers have begun to collaborate on solving such complex societal issues (Sanders & Stappers 2012, 22), leading to design profession partly receding from its origins in crafts and arts, and becoming increasingly affiliated with design thinking and the intellectual qualities of the practice (Kimbell 2011). Thus, as design has become perceived as an approach to address wicked problems and societal issues, the former conception of a designer as the central, artistic actor in a design process has become commonly perceived as obsolete. Bjögvinsson et al. (2012, 101) propose that "the design community is challenged to think beyond both the omnipotent designer and the obsession with products, objects, and things. Instead, what is suggested is … that designers should be more involved in the big picture of socially innovative design, beyond the economic bottom line". It is, hence, suggested that contemporary design practice should be driven by the objective of contributing to societal innovation and positive change, rather than accepting economic growth as its primary aim. In becoming applied on seemingly remote domains to induce broader societal change and to solve even global problems, and further adopting a critical stance towards existing ecological, economic and social practices, design has become issue-led (Fuad-Luke 2009, 20) and perceived as "inherently activist" (Berglund 2013, 198). Therefore, it can be concluded that the contemporary design practice has become driven by the pursuit of sustainability and eliciting broader positive change on the society, which requires expanding the understanding regarding the outcomes and purposes of design.

With sustainability as the ultimate goal, the scope and scale of design practice has over the course of the past fifty years expanded from details to systems (Joore & Brezet 2014, 1). Formerly mainly regarded as a practice of defining the cosmetic features of products and environments at the end phase of a design process, today design is rather perceived as a comprehensive approach that can be applied to transform not only end products and services, but also the processes and entire systems behind both material and immaterial outcomes (Moritz 2005, 32). Thackara (2005, 17) demonstrates the key role of designers in the pursuit of broader sustainable practices by claiming that "sustainability is a design issue" and elaborating this argument further:

> Eighty percent of the environmental impact of the products, services, and infrastructures around us is determined at the design stage. Design decisions shape the processes behind the products we use, the materials and energy required to make them, the ways we operate them on a daily basis, and what happens to them when we no longer need them. We may not have meant to do so, and we may regret the way things have turned out, but we designed our way into the situations that face us today. (Thackara 2005, 1)

The statement implies that by acknowledging the impact that design can have on the accumulated design decisions behind products, processes and systems, a broader societal change can be achieved by means of design. The importance of responsible design decisions is also highlighted by Fuad-Luke (2009, 61) who states that "all designers, as specifiers, are implicit in resource use and so have a key role to play in averting resource depletion". He further adds that "it therefore seems important for designers to take on a larger role in addressing climate change issues … However, eco-efficiency improvement in products, services and buildings can only go so far. Designers will need to encourage positive eco-efficient behavioural changes to significantly reduce per capita carbon footprints" (Ibid., 60). Thus, designing for sustainability goes beyond designing material and immaterial objects, requiring designers to aim for affecting the behavioural patterns of people, and to create an impact on larger systems. In doing so, designers can become "change actors" who "play a strategic role in innovation and transition processes towards a sustainable society" (Joore & Brezet 2014, 1). Therefore, in order to induce a larger positive change towards sustainable society, it is key for designers to adopt a comprehensive mindset regarding their professional practice by viewing everything that is designed as systems of various factors - and actors - involved (IDEO 2016).

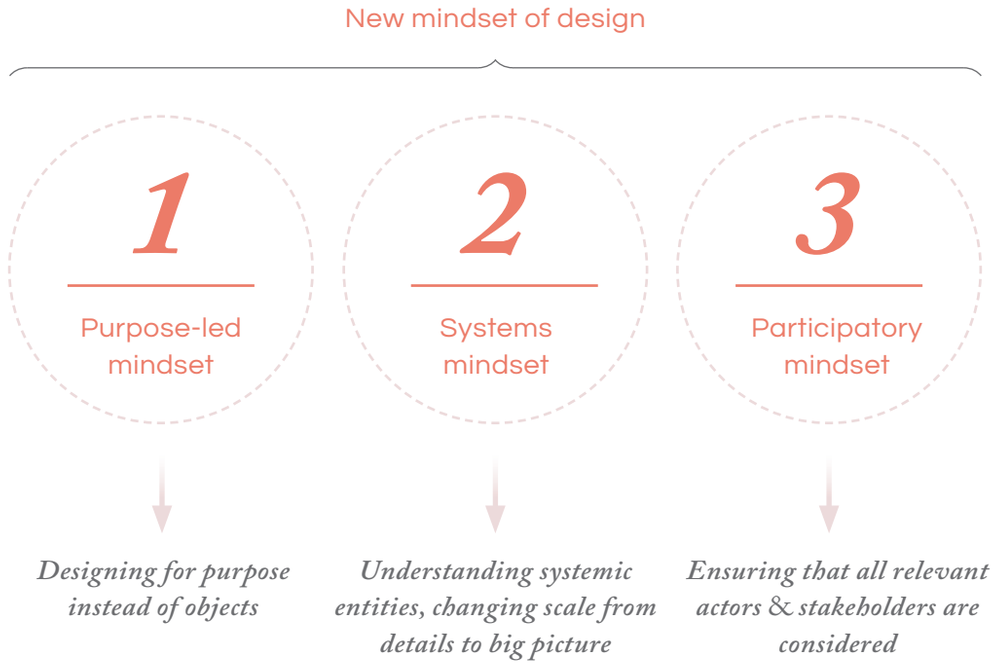


Figure 7: The new mindset of contemporary design practice

THE PURPOSE-LED, SYSTEMIC & PARTICIPATORY MINDSET

In the literature reviewed for the thesis, three main attributes emerge that characterize the new mindset that is required of contemporary designers to adopt in order to elicit broader change for a sustainable society (Figure 7). Suggested by the theoretical review, this mindset is purpose-led (Sanders & Stappers 2012), systemic (IDEO 2016), and participatory (Sanders & Stappers 2012; Fuad-Luke 2009). First of all, the focus of design has shifted from the objects of design to "the purpose of designing" (Sanders & Stappers 2012, 17) and "from the product to beyond the product, and to designing meaningful product-user relationships and experiences" (Fuad-Luke 2009, 150). Traditionally trained design disciplines, such as industrial design, interior design and fashion design, have specialized in creating particular objects, spaces or clothing, often in isolation from other disciplines (Sanders & Stappers 2012, 17). By contrast, novel disciplines of design, including design for service, design for experience and design for sustainability, are purpose-led, broader in scope, more ambitious and, therefore, "require the collaboration of people from many different backgrounds, including both designers and nondesigners" (Ibid., 18). The outcomes of these new disciplines are usually complex, often immaterial entities such as services or experiences, that focus on the purpose of designing and the value generated in the process for the users (Ibid., 18). Furthermore, in designing for the purpose and complex entities, designers need to be able to think in systems (IDEO 2016), as "systemic problems need systemic solutions" (Brown & Wyatt 2010, 31). In design context, thinking in systems entails understanding the outcomes and processes involved in design as parts of larger systems in which each part reciprocally affects the other parts (IDEO 2016). A system thus refers to a network of interconnected functions and elements that are coherently organized in order to achieve an intended purpose (Jones 2014, 3; Meadows 2008, 11). It is a complex entity, usually with subsystems embedded within the larger system, that is comprised of interconnected elements and actors working towards a purpose, and that is more than the sum of its parts (Meadows 2008). Manzini and Rizzo (2011, 199) illuminate the need for systems thinking in approaching complex problems by stating that "the transition towards sustainable ways of living and producing requires radical changes on every level of socio-technical systems from the small scale of everyday life solutions to the large scale where the systems to be transformed are whole cities". Therefore, in order to appropriately address the wicked problems of contemporary society, designers are required to understand their actions and work as interventions within nested systems, and to be able to change perspective from the smallest details to the comprehensive view of the systemic entities. Furthermore, it is implied that, ultimately, designers need to comprehend the consequences of their designs within the scale of cities, and approach the urban context as a complex system that may also be redesigned.

The third, and perhaps the most important, attribute that is required of designers to adopt in designing for complex entities is a mindset that is participatory. Fuad-Luke (2009, 142) proposes that "if sustainability is the most challenging wicked problem of the current era, then participation in design, as a means to effect deep, transformative, socio-political change, seems essential. This suggests a significant new direction for design to seize". By the statement the author implies that collaboration between designers, experts, users and other stakeholders is crucial in dealing with wicked problems, and inducing broader societal change. This view is also shared by Sanders and Stappers (2012, 22) who state that "the problems that designers are being invited to help identify and to solve cannot be addressed by individuals, no matter how smart or creative they are" as "the situation is far too complex". Thus, in order to address complex challenges, designers need to adopt a participatory mindset, where the focus is on multi-stakeholder collaboration, with designer's formerly perceived role as the sole decision-maker in a design process challenged. This change-oriented approach "builds on the design professional's expertise in facilitation, where designers do not create objects or services so much as work constructively with

multiple stakeholders dealing with multifaceted problems" (Kimbell 2011, as referenced by Berglund 2013, 198), with the act of designing thus becoming "a collaborative effort where the design process is spread among diverse participating stakeholders and competences" (Björgvinsson et al. 2012, 101). Suggested by these statements, addressing systemic problems and adopting a participatory mindset leads to designers becoming facilitators of collaborative processes, with the decision-making power within those processes distributed to multiple actors involved within the systemic issues. This point is further illustrated by Thackara (2005, 7), who asserts that "the days of the celebrity solo designer are over. Complex systems are shaped by all the people who use them, and in this new era of collaborative innovation, designers are having to evolve from being the individual authors of objects, or buildings, to being the facilitators of change among large groups of people". Therefore, it becomes apparent that the focus of design is shifting from designing tangible and intangible products to facilitating and conducting change-oriented processes that are based on collaboration and participation, and that aim to induce broader changes within systems.

2.3 DESIGN & DESIGNERS IN THE URBAN CONTEXT

THE APPLICATION OF DESIGN IN CITIES

As design has become harnessed to solve complex issues in various different domains over the past decades, it has also become perceived as a prominent approach in the development of citizen-centered environments and solutions for the urban context and public sector (Riquelme 28.11.2018; Ikävalko 16.11.2018). Global megatrends, such as urbanization, are leading cities to grow rapidly in the decades to come: currently, half of the global population lives in cities, and by 2050 staggering 70% of the population is expected to dwell in urban areas (Toimiva kaupunki n.d. a, 2), with the number of citizens in Helsinki alone presumed to grow by over 30% in 30 years (City of Helsinki 2017b, 5). As cities are growing in size, also their level of complexity is

> *Complex systems are shaped by all the people who use them, and in this new era of collaborative innovation, designers are having to evolve from being the individual authors of objects, or buildings, to being the facilitators of change among large groups of people.*
>
> Thackara 2005, 7

increasing, which is leading to an urge to develop cities with multidisciplinary co-operation in order to respond to the changing needs of the society of both today and the future (Toimiva kaupunki n.d. a, 2). With design recognized as a prominent approach to co-developing services and solutions for citizens in complex environments, designers have begun to collaborate and even become employed by cities in the past decade, which has generated a need for a new kind of design professional: the urban designer (translated: *kaupunkimuotoilija*) (Ikävalko 16.11.2018; Riquelme 28.11.2018). In this context, urban design denotes the design-driven, human-centered and sustainable development of services, environments and solutions for citizens by means of design, and in collaboration with different stakeholders and cities (Ikävalko 16.11.2018; Riquelme 28.11.2018). In Helsinki and Finland, the pivotal point for the emergence of urban design as a recognized design discipline is perceived to be the World Design Capital year in 2012 (Ikävalko 16.11.2018; City of Helsinki 2016b). According to Ikävalko (16.11.2018), service design and immaterial design had already begun to appear in the design field at the end of the previous century, but it was not until the second decade of the 21st century when the benefits of urban design, service design and human-centered design were truly understood in the Finnish society. Up until then, Ikävalko (Ibid.) views that design was still strongly associated with designing concrete artefacts, both in and outside the professional design field. As the decade has progressed, however, urban design, service design and human-centered design have gained foothold in the public sector, as design has become acknowledged as a means to generate significant value in cities in various ways (Ibid.).

The emergence of urban design has led to the expansion of the common and conventional conceptions on what kind of outcomes and value can be generated by means of design. In 2016, the city of Helsinki hired Anne Stenros as the very first Chief Design Officer of the city, with the aims to apply design in the development of both public services and at the strategic level of city development,

Figure 8: Four main values of design in the urban context

while also strengthening the image of Helsinki as an international capital city of design (City of Helsinki 2016b). In an interview published in the same year (Ibid.), Stenros elaborated the new role of design in cities:

> The World Design Capital year 2012 woke Helsinki to contemplate on the potentials of design … Genuinely hearing and understanding the users as well as designing services in an empathic manner are at the core of this development. Helsinki possesses excellent starting points due to the several years of persistent development of urban design … From this foundation it is good to begin to strengthen the role of design as part of the strategic planning and development of the city. At the same time, Helsinki as a city brand will build its position as the internationally pioneering city of design expertise. (Anne Stenros referenced in City of Helsinki 2016b)

This conception is also aligned with the current Helsinki city strategy, where it is stated that "design is an internationally remarkable distinguishing factor for the city of Helsinki. Helsinki strengthens its international profile as a design metropolis. By combining design, digitalism and dialogue, a good city user experience is built for the citizens of Helsinki" (City of Helsinki 2017a, 5). Therefore, it can be concluded that there are four main values that design is perceived to generate at the city level (Figure 8). First of all, design is viewed as a means to generate knowledge of the everyday lives of citizens and to enhance democratic decision-making through co-design (Toimiva kaupunki, n.d. a, 1). Second, design approach and methods can be utilized to develop more human-centered solutions and services for citizens, which can increase the quality of living in the city (Ikävalko 16.11.2018), and thus contribute to Helsinki achieving its vision to be "the best functioning city in the world" (City of Helsinki 2017a, 2). The third point is that design is perceived to create strategic value in the city development by generating knowledge that will steer long-term development plans towards a more sustainable future (Ikävalko 16.11.2018). Finally, design can be viewed as a means to generate distinctivity, and as a means to contribute to a stronger, internationally renown city brand (City of Helsinki 2017a). In the current marketing strategy of Helsinki (City of Helsinki 2016a), it is elaborated that the goals of building a distinctive city identity and brand include attracting international tourists and talent into the city, and to harness the local citizens as proud ambassadors of their hometown. Thus, financial gains can be generated in the long run through potentially increased visitor flows and improved quality of the living environment, that may be achieved by means of design.

INTRODUCING URBAN DESIGNERS

With the objective of gaining a practical understanding of urban design as a design discipline and approach, two urban designers were interviewed for the thesis: Pablo Riquelme (28.11.2018) and Sara Ikävalko (16.11.2018), who both have background in working on various public and urban design projects through Design Driven City project (translated: *Toimiva kaupunki -hanke*). Design Driven City was a two-year project initiated by the city of Helsinki that took place after the World Design Capital year 2012 over the timespan of 2013-2015 (City of Helsinki 2017c). The main aim of Design Driven City was to enhance the utilization of design in cities by providing design expertise, while mutually generating knowledge and understanding within the professional design field regarding the needs of the public sector (Ibid.). Riquelme and Ikävalko were among the three designers who were hired for the project, taking part in approximately 60 public design projects in total over the duration of Design Driven City (Ikävalko 16.11.2018). The projects were diverse and ranged from service design projects, such as generating a user-centered service concept for future library services (Toimiva kaupunki n.d. b), to addressing open-ended societal issues, including creating solutions to diminishing homelessness of the youth (Toimiva kaupunki n.d. c). The projects involved working tightly together with the stakeholders and users of the different services

throughout the research, ideation and implementation phases of the processes, and co-developing solutions to issues by means of design (Toimiva kaupunki n.d. c). The importance of the research and collaboration in urban design is elaborated in the report of one of the projects conducted for the Design Driven City (Toimiva kaupunki n.d. d, 2):

> … it is of primary importance for an urban designer to observe the everyday lives of people and to understand in each project the point of view of the user, and the relations of different stakeholders. Familiarizing oneself with the life of the people also builds trust between different parties of the shared projects. Observing the everyday life also helps the designer in practice - how the understanding of the users is integrated in the work of design. Empathic curiosity is an important tool for a designer in the city. Through genuine user understanding, the designer can be rid of the generalizations derived from their own experiences. (Toimiva kaupunki n.d. d, 2)

Therefore, it may be derived that urban design is, first and foremost, about people, and designing human-centered solutions. As the projects often deal with complex and abstract issues, the need to establish a thorough understanding of the needs of the users, the interdependencies and relations between stakeholders as well as the issue itself in relation to the surrounding context are emphasized in the work of an urban designer. Moreover, the process gains importance in urban design, with byproducts such as trust that is built between stakeholders recognized to potentially lead to achieving broader societal implications.

In comparison to other disciplines of design, urban design is the broadest in scope, as the projects require the designer to work with systemic issues in various scales, and to also have an understanding of the internal processes involved with cities as organizations. Urban design is often confused with service design, yet the two are not synonyms: while service design tools and methods can be utilized in urban design, it is essential that urban designers can

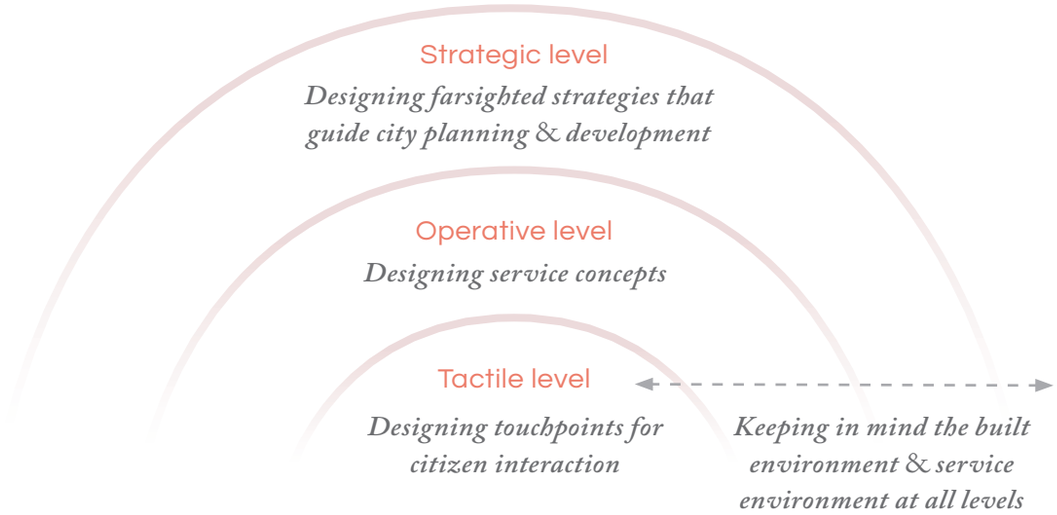


Figure 9: Three levels of urban design
Based on Ikävalko 16.11.2018 & Ikävalko at City Service Design 27.3.2019

work in various dimensions of cities, and thus have a comprehensive understanding of the issue and the process. Ikävalko (16.11.2018) perceives that perhaps the most important distinguishing factor between the two disciplines is that an urban designer needs to be able to understand also the physical and built environment, not just the immaterial service dimension in cities. She views that it is essential that the service environment and physical environment create a functional, coherent whole, and thus urban designers can help bridge the gap between these two distinct yet interrelated environments. Furthermore, Ikävalko elaborates that an essential part in the work of an urban designer is that they work at three distinctive levels (Figure 9). First of all, an urban designer needs to be able to work at the tactile level, together with the citizens and users of services, and to understand the physical and digital touchpoints where the citizens interact with public services. Second, they also work at the operative level of cities, which is where service concepts are produced in collaboration with cities. Finally, an urban designer needs to forward the knowledge generated by user research and findings derived from the projects to the strategic level, which is where the farsighted decisions regarding city planning are made. Thus, in order to generate sustainable and efficient services and solutions, it is required to establish a thorough understanding of the citizens' everyday lives, enable participation throughout the development processes, and to work systematically at the different levels where the input is translated into concrete solutions and strategies (Ikävalko at City Service Design 27.3.2019). Therefore, urban design aims to contribute to the comprehensive and sustainable development of cities, where the citizens are placed at the core of the process and multidisciplinary collaboration between various stakeholders and experts is enabled throughout the conducted process at various levels by means of design. (Ikävalko 16.11.2019)

REQUIRED SKILLS OF URBAN DESIGNERS

Based on the study, there are various particular skills inherent in urban design practice that are considered

> *Designers never create anything for today; it is always the future that is built.*

Ikävalko 16.11.2018

valuable and essential in the context of cities, and that build on the capabilities and purposes traditionally affiliated with design profession (Figure 10). While the working scope of designers has transformed and expanded over the past decades, both Ikävalko (16.11.2018) and Riquelme (28.11.2018) perceive that the underlying premise and goal is still shared by both urban design and traditional design disciplines: the aim to study how people live, and to use the generated knowledge to improve the living conditions and quality of lives of people. Riquelme (Ibid.) views that the ability to make well-informed interpretations of both the needs of the users as well as the surrounding environment and phenomena is vital in the work of an urban designer. Thus, an urban designer is required to understand the systemic entities around issues: instead of forwarding the findings from user research as such, it is important to critically process and reflect the findings against the larger, systemic entity of the issue at hand (Ibid.). Ikävalko (16.11.2018), on the other hand, views that the most important values that a designer can provide cities include the human-centered approach, obtaining and interpreting high quality data through designerly methods, and the utilization of skills and tools that enable future-oriented anticipation. "Designers never create anything for today, it is always the future that is built" (Ibid.) - a notion that is especially emphasized in the urban context, where the projects are farsighted and may take several years of time to be developed (Ibid.). "At best, design methods thus help to understand and imagine something that does not yet exist" (Toimiva kaupunki n.d. a, 9), as they can be utilized to visualize and concretize abstract ideas and to anticipate future needs (Ikävalko 16.11.2018). By utilizing designerly methods and means of visualization, mutual understanding can be increased between stakeholders, and abstract values and tacit knowledge can be turned into concrete, smart and resource-efficient solutions that improve the quality of lives of people (Ibid.; Riquelme 28.11.2018). Furthermore, design can introduce cities with culture of experimentation, where iterative processes as well as fast prototyping and testing of ideas are nourished (Toimiva kaupunki n.d. a, 8), which can ultimately

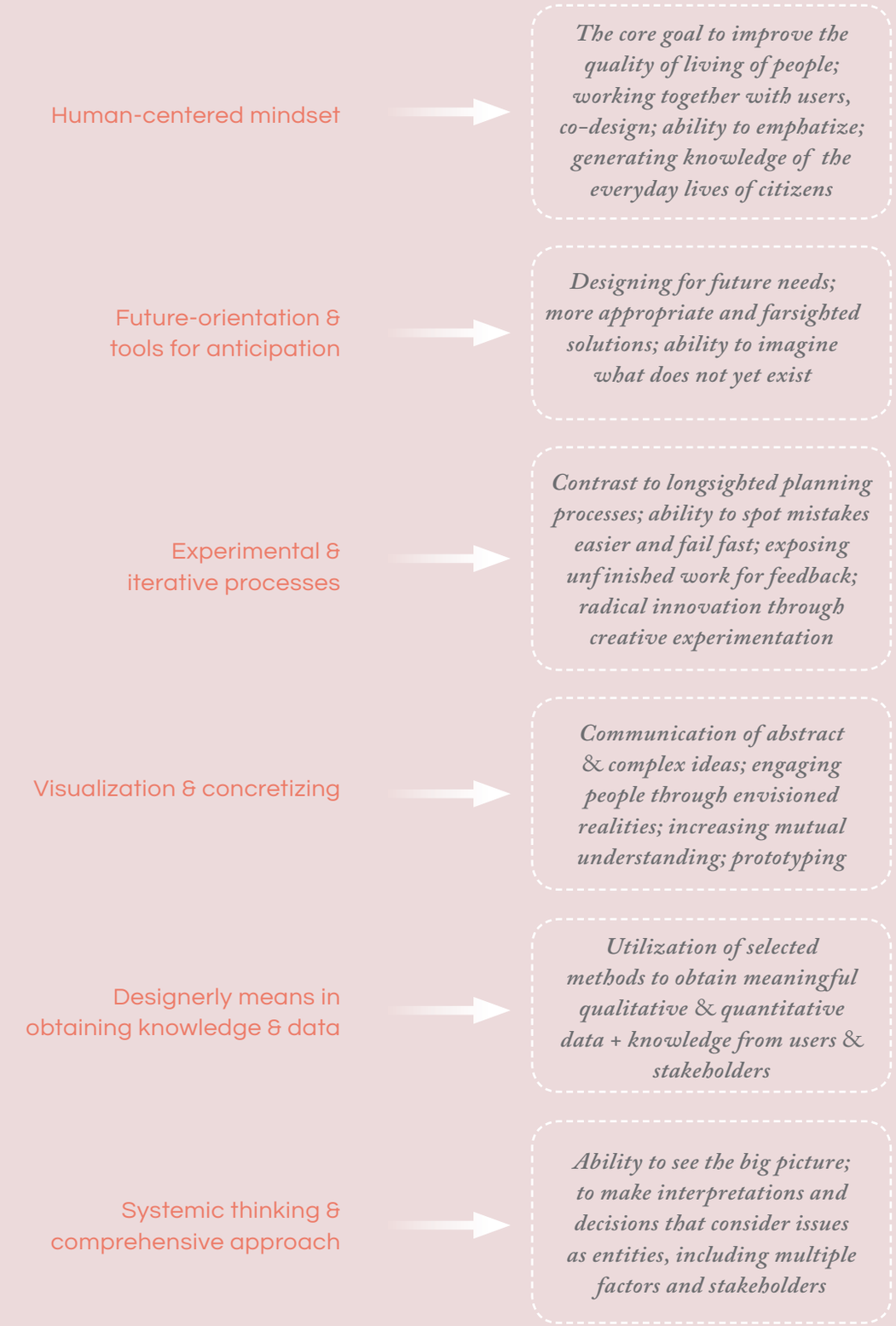


Figure 10: The valuable skills of urban designers in the context of cities

> *Perhaps the utilization of design methods could be crystallized into two words: it is attitude and action.*

Toimiva kaupunki n.d. a, 8

accelerate implementation processes and improve the chances of successful outcomes (Riquelme 28.11.2018). An essential part of the culture of experimentation is questioning the conventional models, and exposing also unfinished ideas and concepts to public discussion and evaluation before they are finished (Toimiva kaupunki n.d. a, 8). This can help spot mistakes easier and ensure that the developed ideas and concepts respond to the needs of the users, which may also accelerate the processes and lead to saving of resources. With creativity and open-mindedness as inherent qualities in design, innovative, surprising and even radical solutions can be found to problems together with stakeholders (Ibid., 2).

To conclude, urban design is a discipline of design that aims to contribute to the development of public services, urban environments and other solutions for the urban context in a way that is human-centered, comprehensive, deliberative, open-minded and agile, and thus helps build cities that are more citizen-centered and sustainable. Designers can visualize what does not yet exist, and thus help engage stakeholders in future-oriented goals, and build solutions that better anticipate future needs. The methods and visual language utilized in design can contribute to building mutual understanding between stakeholders and, hence, potentially accelerate processes, save resources and lead to both generating new and improving existing design solutions that meet the needs of citizens. Moreover, by improving reciprocal communication and generating knowledge of user needs, cities can better respond to the needs of citizens both by providing smarter solutions that improve the quality of lives of citizens, and by creating strategies that build more sustainable and attractive cities of the future. Furthermore, the iterative and intuitive processes of design that build on humane interaction, prototyping and finding creative solutions through experimentation, can provide essential contrast to long, farsighted and often bureaucratic processes conventionally affiliated with city development. The open-minded attitude that is at the core of design and any creative activity can lead to finding innovative solutions that challenge the conventional models and truly respond to the needs of the citizens. The open-minded and hands-on approach of design is summarized in the following statement:

> Perhaps the utilization of design methods could be crystallized into two words: it is attitude and action. Attitude in the sense that new situations are embraced with courage, and different approaches are tested without knowing where they lead to. Action in the sense that learning often happens through doing, and that it is accepted that failure is part of the action. The methods of design provide a permission to do things differently - in a way that is challenging, user-centered, experimentative, through doing in a concrete manner. (Toimiva kaupunki n.d. a, 8)

Therefore, by relying on intuition, iteration and experimentation, design can help find innovative and appropriate solutions to problems, and create more sustainable services and environments. “Cities are for the citizens” (Ikävalko at City Service Design 27.3.2019), which is why human-centeredness is the most significant value that design can generate in cities. By placing citizens and their everyday experiences at the core of all development, and including citizens in the development processes by means of co-design, more sustainable and appropriate solutions can be created. Therefore, in order to understand the ultimate potential value that design can generate in cities at a more practical level, it is essential to immerse oneself into the concepts of participation and co-design in the contexts of both design and cities.

> *If sustainability is the most challenging wicked problem of the current era, then participation in design, as a means to effect deep, transformative, socio-political change, seems essential. This suggests a significant new direction for design to seize.*

Fuad-Luke 2009, 142

3

Participatory mindset, approach & practices in design

3.1 DEFINING PARTICIPATION IN DESIGN

PARTICIPATORY DESIGN

Identifying the purposes and practices of participation in design, as well as the roles that a designer can adopt in a participatory process, requires first comprehending the various definitions and underlying values affiliated with participation as a concept. In short, participatory design is an approach to design that aims to involve users and other stakeholders in the design process, and thus allow the stakeholders to affect the outcomes of that process (Bjögvinsson et al. 2012; Sanders & Stappers 2012). Wulz (1986, 162) has defined participatory design as "a process, not a mere action" that can be applied "as a method by which the user's knowledge is collected and added to the design process, to the extent that it is considered to be relevant and of interest". Hence, one of the main goals of participation in design is perceived to be to improve the chances of a design outcome being successful (Fuad-Luke 2009, 147; Carroll & Rosson 2007) by including users in the development process and thus ensuring that the designed product meets the needs of the end users (Sanders & Stappers 2012, 19). Even though participation has started to gain more foothold as a prominent and even vital approach over the past decade with a shift in paradigm from expert-centeredness towards human-centeredness (Ikävalko 16.11.2018), the concept as such is not new. Participatory design dates back to the 1970's in Scandinavia (e.g. Sanders & Stappers 2012, 28; Holmlid 2009, 107; Bjögvinsson et al. 2012, 103), where it stemmed from the movement aiming to democratize workplaces through the promotion of joint decision-making (Ibid., 103), with one of the aims to enable collaborative development of new technological tools and systems at workplaces (Holmlid 2009, 107). Hence, the early participatory processes included collaboration between system developers and employees, with the aim to utilize "the situated expertise of the people whose work is to be impacted by change" (Sanders & Stappers 2012, 28), starting from "the simple standpoint that those affected by a design should have a say in the design process" (Bjögvinsson et al. 2012, 103). For several decades, participatory design was strongly associated with the development of technological systems and computer interaction (Holmlid 2009), but over time it has become applied in different disciplines and for various purposes in design field (Sanders & Stappers 2012). For example, participatory design has strongly contributed to the methods and key principles established in contemporary design disciplines such as service design, where user involvement is considered essential (Holmlid 2009). While participation in design has over time gained a number of novel purposes, methods and terminology in contemporary societal setting, the underlying values of participatory design have persisted.

THE VALUE PREMISE OF PARTICIPATORY DESIGN APPROACH

In design literature, two distinctive, fundamental values emerge on which participatory design is perceived to build on (Figure 11): the moral and the pragmatic premises (Carroll & Rosson 2007). The former premise is elaborated by Carroll and Rosson (2007, 243), who state that "the people whose activity and experiences will ultimately be affected most directly by a design outcome ought to have a substantive say in what that outcome is" - in other words, the end-users have a moral right to be directly included in the design process. Similarly, Ehn (2008, 3) has described this value as "the social and rational idea of democracy as a value that leads to considerations of conditions for proper and legitimate user participation". Therefore, the moral premise of participatory design builds on the idea of democracy, and that the users of a particular design, such as a service, product or environment, have a right to affect the design process and outcomes. Aligned with this view, Fuad-Luke (2009, 148) states that participatory design "contests top-down only decision-making and attempts to democratize it", with the design process used as a means to include the users in determining the design outcomes. Furthermore, he adds that the concept of participation in design is "imbued with political ambitions regarding power and inclusion because it invokes notions of direct,

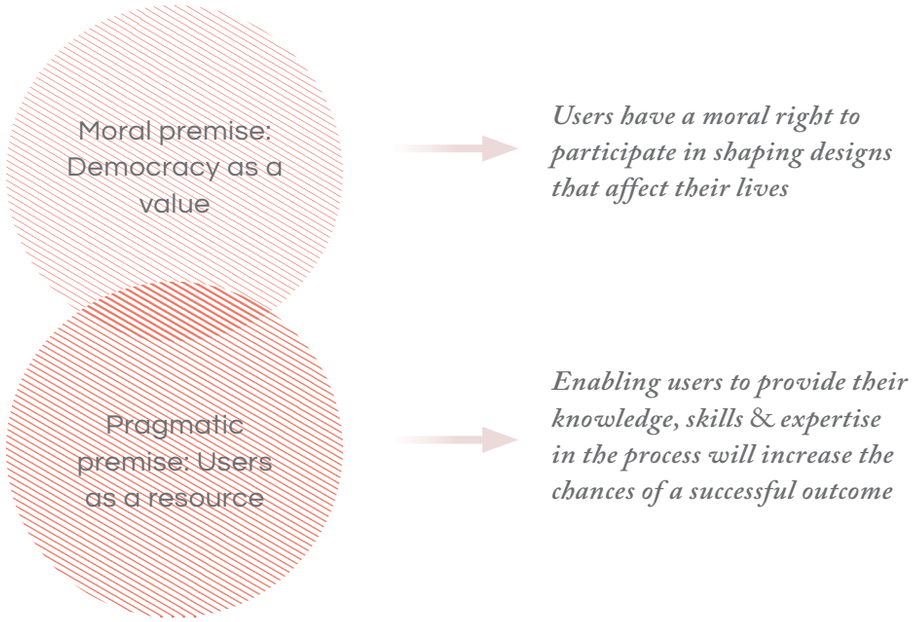


Figure 11: The moral and pragmatic premise of participatory design
Based on Carroll & Rosson 2007, 243

anticipatory and deep democracy, whereby the participants have a voice and that voice informs the design process" (Fuad-Luke 2009, 148). Therefore, it can be derived that participatory design is inherently "a political and democratic act" (Ibid., 196), in the sense that it is driven by the idea of a democratic, open and transparent development process, and aims to distribute decision-making power to the stakeholders involved in that process instead of centralizing the power to the hands of the few. In the context of design, the idea of participation "entails some reallocations of power in design collaboration" as "it becomes less acceptable for a designer to simply 'present' solutions … to other partners" (Carroll & Rosson 2007, 244). In practice, this means that participatory design aims to incorporate the views of users in the design process, and even view participants as co-designers, rejecting the idea of designer as the sole decision-maker in that process. The ability to participate is thus viewed as a justified right of the users, with the decision-making power rightfully allocated to those who are ultimately impacted by those decisions, the process and the outcomes.

The other established, guiding value of participation is what Carroll and Rosson (2007, 243) refer to as the "pragmatic proposition", central to which is the claim that "directly including the users' input will increase the chances of a successful design outcome". This claim is based on the idea that when the knowledge and skills of the end users are considered as an invaluable resource in the design process, the perspectives and obtained knowledge can critically steer the design process and, thus, result in outcomes that better meet the needs of the users (Ibid.). Thereby, participatory design aims to obtain knowledge from the users, and to utilize the tacit knowledge, skills and professional expertise of the participants as a resource in the design process (e.g. Ehn 2008; Carroll & Rosson 2007; Mattelmäki & Sleeswijk Visser 2011). Participants are viewed as "experts of their experiences" (Sanders & Stappers 2012, 24), and are therefore perceived to play a critical part in the design process by providing their multidisciplinary expertise and knowledge of their personal experiences as a resource (Ibid., 24; Mattelmäki & Sleeswijk Visser 2011, 2). The central

role of end users, i.e. the people who are aimed to be served through the design, in a participatory design process is emphasized in several literary sources (e.g. Sanders & Stappers 2012). This is because "people such as 'end-users' hold expertise about their needs and dreams", which is why "their contributions are essential for finding and implementing solutions to problems" (Ibid., 30), and also why users should be involved "throughout the design development process to the extent that it is possible" (Ibid., 19). However, in her article written in 1992, Sanders (1992, 52) points out that participatory design is not limited to the participation of end-users only, but should also encompass other stakeholders in the process. The importance of including other stakeholders in addition to the end-users in a participatory design process is further highlighted by several other authors (e.g. Mattelmäki & Sleeswijk Visser 2011, 4; Björgvinsson et al. 2012, 107), where a stakeholder denotes "anyone who has a stake in a certain process or thing" (Sanders & Stappers 2012, 303) - in other words, those who may not necessarily be the end-users of a product or service, but are in some other way associated with the project or its process. Ikävalko (at City Service Design 27.3.2019) perceives multidisciplinarity as essential in participation, as utilizing the expertise, knowledge and perspectives of professionals from different fields, not just the end users, is key, especially in urban design and solving complex problems. Thus, it can be derived that essential to participation in design is the perception of both users and other stakeholders as an invaluable resource, who inform and inspire the different stages of design process, with their contribution, knowledge and input viewed as crucial in resulting in appropriate design outcomes.

CO-DESIGN & CO-CREATION

In addition to participatory design, there are several other, more recent terms that are used to refer to the involvement of users and stakeholders in a design process, often in an ambiguous and overlapping manner. Based on the reviewed design literature, perhaps the most commonly used of the related terms is co-design. The terms participatory design and co-

design are often used as synonyms, although the latter term is perceived to convey a less political nuance when compared to the former one (Mattelmäki & Sleeswijk Visser 2011, 3). The prefix 'co' in co-design denotes 'together' or 'with' - thus, co-design literally translates to "designing with (others)" (Fuad-Luke 2009, 147). In literature, the term co-design has been referred to as a process that builds on a collaborative mindset (Mattelmäki & Sleeswijk Visser 2011, 11) that is "about users or people imagining and planning with issues that are not-yet-existing and utilizing the skills that are in the core of professional design competence" (Ibid., 3), suggesting that participants take part in the act of designing in a co-design process. Fuad-Luke (2009, 147) defines co-design as a broad umbrella term that includes different approaches of design, including participatory design, that encourage user and stakeholder participation. He states that co-design "offers an opportunity for multi-stakeholders and actors to collectively define the context and problem and in doing so improve the chances of a design outcome being effective" (Ibid., 147), implying that co-design involves stakeholders participating from the very beginning of the process. Sanders and Stappers (2012, 25) have used the term to indicate "collective creativity as it is applied across the whole span of a design development process", which suggests that co-design is used to refer to the entire process of designing collaboratively. Thus, it is clear that although some authors view co-design in a more restricted, narrow manner - for example, Rizzo (2010, 125) defines co-design as "a set of creative techniques whose aim is to inspire the design process" - the majority of the reviewed literature regard co-design as a broad, all-encompassing concept, and a collaborative mindset that guides the design process. This leads to the conclusion that co-design is not a single technique used to incorporate stakeholder input, but rather a comprehensive approach to a design process that builds on stakeholder participation. Furthermore, in comparison to the term participatory design, co-design conveys a more active nuance: the term co-design suggests that the participants are equal and active co-designers, who design together with others throughout the design process.

Another reminiscent term that has emerged to indicate user involvement in the design context is co-creation. Similarly as with co-design, the term co-creation is also used in an equivocal manner in different literary sources. For example, it has been used to indicate "any act of collective creativity", meaning "creativity that is shared by two or more people" (Sanders & Stappers 2012, 25), and as a creative "mood", "mindset" and set of "methods" that take place within a co-design process and aim for the exchange of ideas and experiences (Mattelmäki & Sleeswijk Visser 2011, 6). Mattelmäki and Sleeswijk Visser (2011, 4) have defined two distinct interpretations of co-creation in the context of design: the first definition refers to a "creative moment, atmosphere" that takes place in a co-design event, such as a workshop, whereas the second conception refers to a creative method of stakeholders creating solutions together in a co-design process. The authors thus view that co-creation is temporary (Ibid., 7), in contrast to co-design which is generally used to indicate the whole participatory process or mindset in a broader sense. From these definitions it can be derived that co-creation is commonly used to refer to the temporary, specific act, moment or method of creating together with stakeholders, in which case the act of co-creation can take place during a co-design event or process. However, the ambiguous manner in which the term is used is elaborated by Sanders and Stappers (2012, 299) who have defined the term as a "collaborative creative action, event or artifact" that is "sometimes used to refer to codesign as a whole, sometimes … to a single event with stakeholders" (Ibid., 299). As an act of collective creativity, co-creation can take place in various different settings, including within communities, companies or organizations, between companies and their business partners, or between companies and their customers or end-users (Sanders & Stappers 2012, 25). The term co-creation is thus also used in various contexts outside of the design field, including business and marketing, where it can refer to the collaboration and creation of value with users and other stakeholders (Mattelmäki & Sleeswijk Visser 2011, 5). Therefore, while it is apparent that co-creation as a term lacks a singular, definitive meaning that would universally

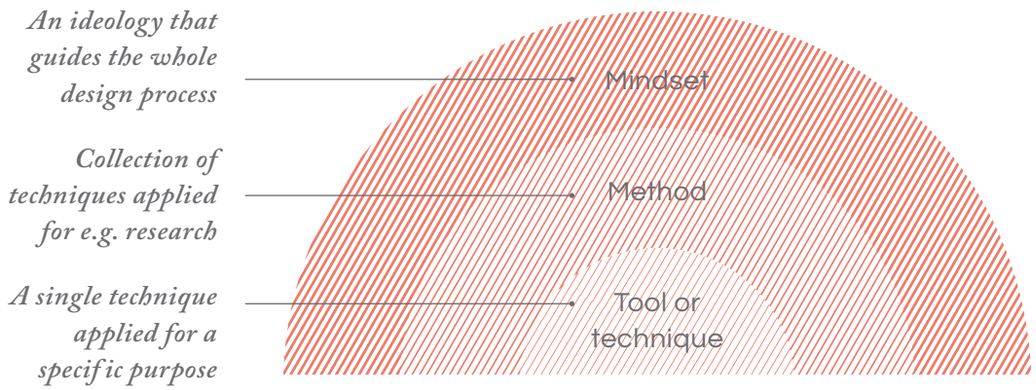


Figure 12: Three dimensions of co-creation
Based on Sanders & Stappers 2012, 30-31

apply to all contexts, in the context of this thesis the term can be summarized as a temporary act of collaborating together with stakeholders, that may take place within a co-design process.

An alternative view regarding the notion of co-creation that is considered relevant for the purposes of this thesis is introduced by Sanders and Stappers (2012, 30-31), who contemplate the different perspectives and scales in which the term can be examined (Figure 12). While in the previous paragraph it was concluded that co-creation as a term is typically used to refer to the temporary act or even particular method used in a co-design process to design together with stakeholders, the aforementioned authors suggest that there are, in fact, three identifiable scales that co-creation can be examined in. The most narrow definition of co-creation is that it denotes a precise tool or technique that can be applied on specific, determined occasions during a development process, for purposes such as generating ideas for product development. In the second scale, co-creation is viewed as a method, i.e. a collection of tools and techniques that are applied on a determined phase in a design process, such as for research purposes. The third, and the broadest, perspective in which the term can be examined is co-creation as a mindset. In this perspective, co-creation is defined as an established attitude, or even as a philosophical worldview, that guides the entire development process from start to finish. Compared to the two other perspectives, co-creation as a mindset has "the most potential to have a positive impact on the lives of people" when applied throughout the process, especially in the front end of the design development process (Ibid., 30-31). While the authors use the term co-creation, it may be interpreted that these three perspectives denote participation in the context of design in a broader sense: thus, stakeholder participation in a design process can be understood and approached as either a singular tool, a method, or a mindset. In this thesis, the focus is on viewing participation through the broadest lense of the three, meaning that it is scrutinized as a comprehensive ideology that guides the design process from beginning to

implementation, and even beyond. This means that instead of perceiving participation as a means for a specific purpose, such as obtaining knowledge from stakeholders in a determined occasion or point in time, it appears to be crucial to view participation as a mindset that is applied throughout the timespan of a process. Therefore, in the following sections, the consequent and potential implications of approaching a design process with a participatory mindset are examined through the shifted actor dynamics and changes in the process.

3.2 THE TRANSFORMED ACTOR ROLES IN CO-DESIGN

THE SHIFTED DYNAMICS BETWEEN USER AND DESIGNER

Participatory design can also be examined as an approach to design research, denoting an approach to the study of people as users of the products, services and environments that are designed (Sanders & Stappers 2012, 18). The approach is often compared (e.g. Sanders & Stappers 2012) to another established, distinctive approach of design research, user-centered design. User-centered design emerged in 1980's as a tool to aid product development processes in order to result in more usable and appropriate design outcomes (Fuad-Luke 2009, 155). Thus, similarly as in participatory design, in user-centered design end-users are viewed as important in providing information that informs and inspires the design process to result in outcomes that meet the needs of the users (Ibid.; Sanders & Stappers 2012). However, despite the similar starting points, the approaches fundamentally differ in several other ways. In a conventional user-centered design research process, design researchers study users and interpret the findings into reports, that inform and inspire designers (Ibid., 23). Hence, a user does not provide direct input to the design process, but instead indirectly affects the process as a "passive object of study" (Ibid., 23). Instead, participatory design introduces a significantly different approach to design research: the role of the user becomes central and active, with users participating in the process

not as merely informers, but rather as co-creators of designs (Sanders & Stappers 2012). Sanders and Stappers (2012, 19) view that, as a research approach, user-centered design is "research-led" and driven by "expert mindset" that views professional designers as the experts and users as "subjects" and "reactive informers". On the contrary, participatory design is described as "design-led", where users and other participants are viewed as "partners" and "active co-creators" (Ibid., 19). This means that, in the latter approach, participants are enabled to directly affect the design process and outcomes, instead of providing knowledge indirectly and in an isolated manner. In a user-centered design process, the focus is on the product that is being designed, with the main goal being to ensure that the product meets the needs of the end users (Sanders 2002, 1). Thus, the key difference between the two approaches appears to be that in user-centered design, designers design for users, while in participatory design and co-design the professionals design together with non-designers, who are perceived as "the real experts" in a design process (Sanders & Stappers 2012, 23).

In the transition to participatory design and co-design, the perception and role of users as actors within a design process changes altogether (Sanders & Stappers 2012, 23). The way in which users are perceived has gradually changed over time (Figure 13) (Fuad-Luke 2009, 147), with previously designers having viewed users "from a design centered observational perspective" (Moritz 2005, 34). Gradually, the users have gained a more active and central role in the design process (Fuad-Luke 2009; Sanders & Stappers 2012): a transition has occurred from "design centered design" to first imagining what users might need, to then making contact with them by means of representation, to then experiencing the user, and eventually collaborating with the users in the design process (Moritz 2005, 34). Over the past decades, 'users' have been called with a number of alternative names, each with varying nuances depending on the prevailing conception on how their role has been viewed, such as 'consumer', 'customer', 'beneficiary', 'human', 'adapter' and eventually a 'co-creator' (Sanders & Stappers 2012, 23; Fuad-Luke 2009, 143). As the word 'co-creator' suggests,

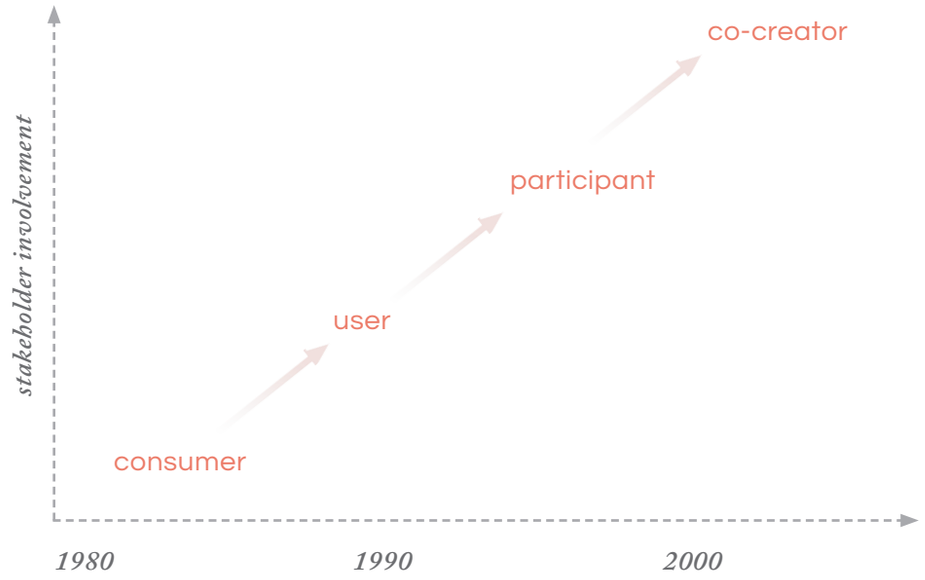


Figure 13: Change of perception of the end-users
Based on Fuad-Luke 2009, 143

in a co-design process users are perceived as active collaborators and important figures in providing knowledge about their experiences in domains such as living or working (Sanders & Stappers 2012), who may even adopt the role of a designer altogether in some cases (Mattelmäki & Sleeswijk Visser 2011, 2). In practice, there are various roles that users as co-creators can adopt in a design process. For example, they may take part in knowledge development and the generation of ideas and concepts (Sanders & Stappers 2012, 24). Furthermore, they can act as sources of information and inspiration, or evaluators of new ideas (Mattelmäki & Sleeswijk Visser 2011, 2). Thus, in a co-design process, users become active influencers and contributors, who directly collaborate with designers and participate throughout the design process in its various phases: from problem definition (Fuad-Luke 2009, 147) to sharing information and exchanging ideas (Sanders & Stappers 2012), to testing and giving feedback of developed prototypes and solutions (Mattelmäki & Sleeswijk Visser 2011).

As users gain a central role in a participatory design process, the dynamics between the actors and the roles of professional designers consequently change as well (Sanders & Stappers 2012, 23). Mattelmäki and Sleeswijk Visser (2011, 5) have identified four distinct directions in the dynamics and roles between designer and user that may occur in a co-design process (Figure 14). The first direction emphasises the need for hearing users in the design process, and therefore this direction views the users as sources of information and expertise. Thus, the first direction follows the more traditional user-centered design principles, where the designer acts as an interpreter of the users' input and needs, and the role of the user remains passive. The second direction utilizes co-design tools that are provided by the designer, with designer taking on the role of a facilitator. In this particular direction, a designer thus enables the expression and direct input of users by providing them tools and facilitating the co-design process or event, with the aim to obtain knowledge, inspiration and ideas to guide the design process. In the third direction, the designer becomes not only a facilitator but also a fellow participant in the

Direction 1: Users provide input for designer to use

Direction 2: Designer provides tools for users & facilitates co-design sessions

Direction 3: Collaboration between users & designer

Direction 4: Stakeholders are invited to co-design sessions, multi-stakeholder collaboration

Figure 14: Four directions of actor dynamics
Based on Mattelmäki & Sleeswijk Visser 2011, 5

co-design process, who equally contributes to the process and the outcome together with the users. This direction thus emphasizes the collaboration between users and designers, and the perception of the two actors as equal co-creators in the process. Whereas the aforementioned directions focus on the interaction between the designer and the user, the fourth direction incorporates other stakeholders into the design process as well: in the last direction, the stakeholders are invited to take part in co-design events, such as workshops, to collaborate and learn from each other, and hence the designer adopts the role of a facilitator and a supporter of the co-design process and events (Mattelmäki & Sleeswijk Visser 2011, 5). This last direction thus emphasizes the collaboration of multiple actors and professionals, and aims to find the best solutions to challenges through collective envisioning and learning (Ibid.). Therefore, it becomes clear that at the core of participatory design and co-design is the perception of users as central, active actors within the design process; however, the practical roles of both users and designers vary between projects. With the changed dynamics and activated role of users in the design process, also the roles and required skills of a designer in a co-design process need further examination.

THE EXPANDED ROLES OF A DESIGNER IN CO-DESIGN

In a co-design process, the interaction between designer and various participants becomes of critical importance, leading designers to adopt new roles that enable and support this interaction. Ikävalko (16.11.2018) points out that participation presumes two-way communication and interaction as fundamentals, a remark further elaborated by Luck (2007, 218) who states that "an assumption underpinning participatory design is that the activity will be collaborative, with users acting as participants in various activities and situations". This means that the notion of participation inherently requires that the decision-making builds on deliberative communication, where decision-making power within a process is distributed to participants, and their input genuinely impacts the design process and outcomes. The reaction among professionals to this transformation from an expert-centered perception towards human-centered, participatory approach has not been solely positive (Ikävalko 16.11.2018). For example, Ikävalko (16.11.2018) has observed confusion among professional designers and architects alike, many of whom fear that their role is diminished due to increased stakeholder involvement. She addresses this issue by comparing the role of a designer to the one of a doctor:

> If you go to see a doctor, it is valuable and important for the medical professional to know what has happened, where it hurts and how the pain affects your everyday life ... The user data that the doctor will gain from the patient is invaluable and vital. It is still the doctor who makes the diagnosis and prescribes the medicine, but the work will most likely be significantly better when the doctor gets specific data from the patient. This same metaphor can be applied in urban design or in the work of an architect. The information and data that we can receive from the users is really valid and can significantly improve the quality of the design work. (Ikävalko, 16.11.2018)

Implied by the statement, participation can improve the outcomes of a design process by harnessing users as sources of data and information, while it is still the professionals who utilize their specialized expertise to interpret that data and make well-informed decisions. This view is shared by Riquelme (28.11.2018) who perceives that it is important for a designer to critically process the input of participants against the larger, comprehensive entity, and make interpretations and decisions accordingly. Thus, it can be derived that, contrary to the common impression, the designer's role in a participatory process is not diminished; rather, the role is expanded and diversified to accommodate appropriate interaction between stakeholders, and to obtain knowledge that is of relevance and can ultimately lead to improved design outcomes.

There are various new roles that a designer can

adopt in a participatory design process, with that of a facilitator being among the most important ones. Facilitation is usually affiliated with organizing and leading collaborative workshops (Luck 2007) and co-design events, that can be defined as "temporary spaces" where co-creation and learning between various stakeholders take place (Mattelmäki & Sleeswijk Visser 2011, 3). In these sessions, non-designer stakeholders are enabled to take part in activities of co-creation and to express themselves creatively (Ibid., 3; Sanders & Stappers 2012). These sessions can also be used for establishing a consensus and deciding how to proceed on a matter, as illustrated by Sanoff (2008, 62-63) who states that "facilitation is a means of bringing people together to determine what they wish to do and helping them find ways in deciding how to do it. Facilitation can also include the use of a variety of techniques whereby people who are not professionally trained can organize themselves to create a change in the environment". The statement further implies that, by adopting the role of a facilitator, a designer can also become an enabler of self-organization, where the co-design session becomes a platform for community-driven intervention. In facilitation, it is important that the activities selected for participation are appropriate for the determined objectives (Sanoff 2008, 62), and that the decision-making power is genuinely distributed to the participants of the workshops and co-design sessions (Luck 2007). "Skilled facilitation leads to better engagement of users, and potentially to better knowledge exchange between users and designers" (Holmlid 2009, 107), as the workshop participants collaborate in identifying issues, take part in discussions and contribute to decision-making processes (Luck 2003, 524). In this setting, the importance of the communicative role of a facilitator is emphasized: successful facilitation does not aim to steer the process, but rather provide the participants with the tools and platform that initiate conversation and enable expression. Therefore, by adopting the role of a facilitator, designers are exposed to other, additional roles: they become creators and providers of tools that enable non-designer stakeholders to express themselves creatively (Sanders & Stappers 2012), mediators of often conflicting interests

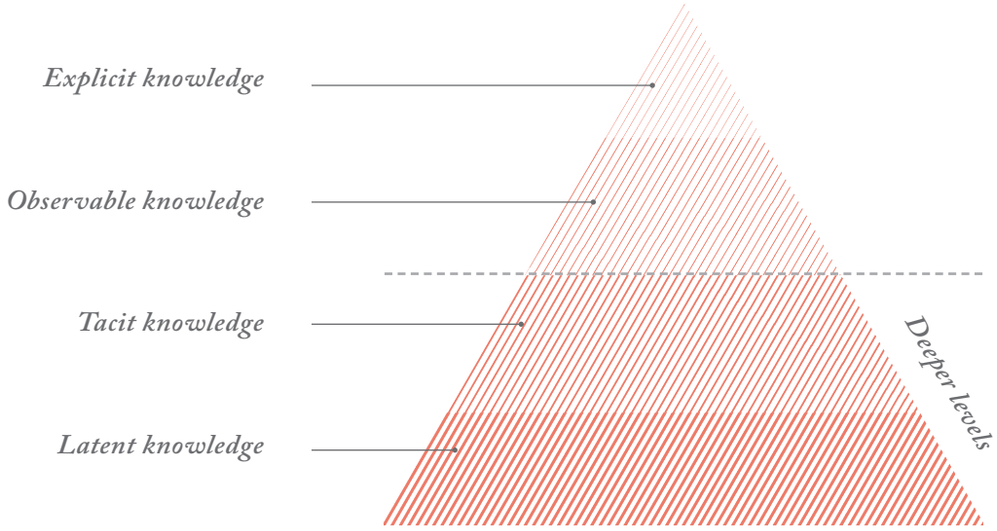


Figure 15: Four levels of knowledge
Based on Sanders 2002, 3; Sanders & Stappers 2012, 67

(Fuad-Luke 2009, 148), enablers of change within the community by creating platforms for self-organization (Sanoff 2008), and empowerers of the participants by providing them an opportunity to affect the design process and outcomes (Mattelmäki & Sleeswijk Visser 2011).

In a participatory process, a designer may also adopt the role of a design researcher (Sanders 2002; Sanders & Stappers 2012), as elaborated by Sanders (2002, 5):

> The roles of designer and design researcher are becoming mutually interdependent … Designers will participate in the creation of the tools and in the expansion of the design language for users. Designers will observe firsthand the experiences the tools afford for creative expression by the users and other stakeholders. Designers will be part of teams responsible for the analysis and interpretation of the "data": the user-generated artifacts and models. Finally, designers can use the ideas generated by the users as sources of design inspiration and innovation.

As the statement implies, essential to the role of a design researcher is the perception of users and other stakeholders as invaluable sources of knowledge, that can be obtained to inform and inspire the design process. With "design language" the author refers to language that relies on "visual literacy" (Ibid., 5) - a shared, creative language based on visuality and concrete artifacts, such as drawings and physical models, that enable the communication of abstract values and ideas, and accessing deeper levels of knowledge (Ibid.). Sanders identifies four levels of knowledge (Figure 15): explicit, observable, tacit, and latent (Ibid., 3), with all four levels relevant in providing information that can inform and guide the design process (Ibid.). Explicit knowledge refers to the information that can be expressed verbally by a person, for example through interviews or questionnaires (Ibid., 3; Sanders & Stappers 2012, 67-69). However, explicit data may not be reliable, as there is a risk of misinterpretation, and

the respondent may alter their answers according to what they think the researcher expects to hear (Sanders & Stappers 2012; Sanders 2002). Observable knowledge denotes interpretations that are based on the actions and behavioural patterns of people, where the observation and documentation of behaviour may be conducted by a design researcher or by the users themselves in the form of self-documentation (Ibid., 67). This level of knowledge may provide information beyond explicit knowledge, as people may not be aware of their own behaviour (Ibid.). Tacit and latent knowledge, on the other hand, comprise the deeper levels of knowledge that are difficult to access and express in words, as these levels of knowledge entail also abstract and often unconscious values, needs, fears and dreams (Sanders 2002). Sanders (2002) views that these deeper levels of knowledge, and the abstract values entwined in them, may be accessed through creative and visual methods. Thus, by adopting the role of design researchers in a co-design process, designers need to aim to access the deeper levels of knowledge, abstract values and experiences of those whom are aimed to be served by design. By creating tools that enable visual expression of abstract ideas and values, these deeper levels of knowledge may be accessed, which can help build empathy and genuine understanding of the users' situation, and provide invaluable information for the design process (Sanders & Stappers 2012).

While participation requires designers to expand their skills in order to enable, support and improve interaction and communication between stakeholders, the specialized skills that are inherent in design profession remain relevant also in the future. Sanders and Stappers (2012, 24-25) illustrate the importance of the role of designers in a participatory process:

> Some people worry that the role of the designer will become obsolete in the near future. On the contrary, design skills will become even more important in the future. ... A user can never fully replace a designer as designers are trained and experienced in designing. This requires specific skills. The complete process can never be outsourced … Designers will be needed because they hold highly developed skills that are relevant at larger levels of complexity … Designers will need to play a role on co-designing teams because they provide expert knowledge that the other stakeholders don't have … This knowledge will still be relevant throughout the design development process. (Sanders & Stappers 2012, 24-25)

Thus, it can be derived that the role of designers is not vanishing; instead, it is expanding, with the traditional skills affiliated with design education and practice becoming applied and harnessed in new ways. Such skills include the abilities to give form to new ideas and to think visually (Sanders & Stappers 2012, 24), visualize abstract matters (Koivisto 2007, 21; Ikävalko 16.11.2018) as well as to conduct creative processes (Sanders & Stappers 2012, 24). In being able to produce and interpret visual artifacts, designers "have the ability to entwine different abstract values and significance into pictures and scale models, much more than it is possible to express in reports or verbal presentations … the visual language supports design democracy in the sense that it becomes an equal, mutual language of communication that can express fear, feelings and experiences … that creates immensely valuable data" (Ikävalko 16.11.2018). In other words, professional designers possess a skill to turn abstract values and matters into concrete and easily understandable realities by means of visualization and prototyping, which can help achieve clarity and mutual understanding between different actors (Koivisto 2007, 21). Derived from the interaction between designer and user, designers can construct interpretations, as designers have the ability to view and comprehend complex entities (Riquelme 28.11.2018). Furthermore, designers are trained to "imagine and visualize things that do not exist but could potentially exist" (Joore & Brezet 2014, 2), and they use various tools to anticipate the needs of future users (Ikävalko 16.11.2018). Therefore, it is apparent that the skills at the core of design competence - abilities to imagine, anticipate, visualize and concretize ideas that are abstract and do not

yet exist - remain significant also in a participatory process. As masters of visual literacy and human-centered thinking, designers can increase mutual understanding and accelerate development processes by enabling communication through shared visual language, empathizing with stakeholders, and being able to interpret tacit and latent needs through visual representations.

3.3 CO-DESIGN PROCESS AS A PLATFORM FOR VALUE GENERATION

ABOUT DESIGN PROCESS

As it was elaborated in the previous sub-chapters, adopting a participatory mindset leads to an emphasized importance on the design process. This is because the process provides a platform for continuous collaboration and participation, with designer facilitating the interaction between stakeholders throughout the process. A design process is the specific sequence of actions taken in order to achieve a determined goal, purpose or solution through means of design (Best 2006; Design Council 2007, 3). There are various ways in which a design process can be conducted, and thus no single process model has been identified to suit all design projects or situations (Design Council 2007, 4), as explained by Ikävalko (16.11.2018):

> There is no single method or process that could be replicated in all cases, as all cases are unique. And that is precisely where the professional skills of an architect or a designer or an urban designer … are measured. There are hundreds of methods, as well as various process models … What is appropriate for each part, it just needs to be determined according to each situation.

As the statement implies, it is part of the professionalism of a designer to be familiar with different process models and methods, and to selectively apply them based on the objectives set for each individual design project. Design processes are found particularly hard to standardize due to "their

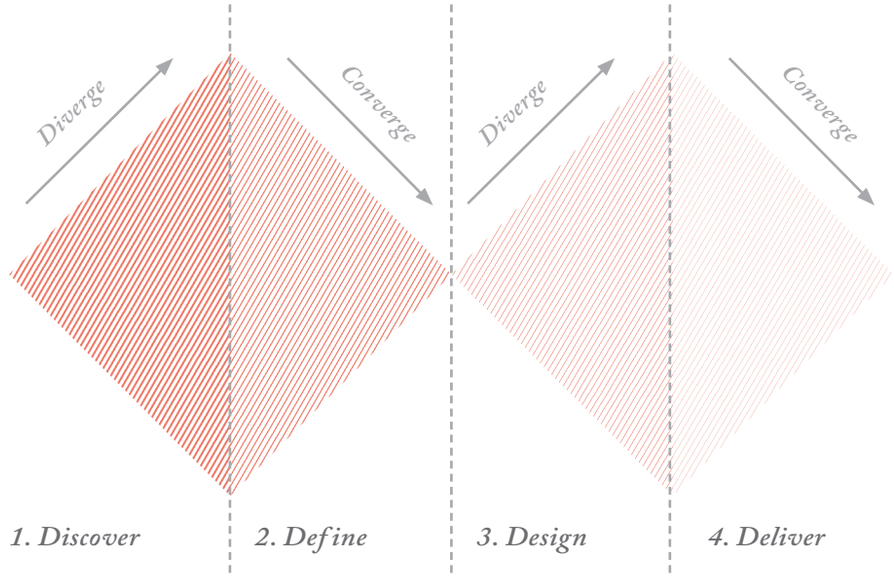


Figure 16: Double Diamond design process
Based on Design Council 2007, 10

iterative, non-linear nature, and also because the needs of clients and users are so different. In addition, real life … is much more dynamic, chaotic and fuzzy than any standard model can fully accommodate and often, stages of the design process overlap" (Best 2006, 114). Thus, the process sequence in design does not follow the typical, straightforward problem-solving logic that is applied in various other domains, and can, on the contrary, seem even "chaotic" to those not familiar with conducting a design process (Brown & Wyatt 2010, 30). A design process is inherently exploratory, meaning that it often requires trial, error and failure, as well as quick prototyping and testing out ideas (Brown & Wyatt 2010). One of the most fundamental attributes of a design process is that it is iterative, meaning that "ideas are developed, tested and refined a number of times, with weak ideas dropped in the process. This cycle is an essential part of good design" (Design Council n.d.). Furthermore, a design process is "deeply human" as it relies on "our ability to be intuitive, to recognize patterns, to construct ideas that have emotional meaning" (Brown & Wyatt 2010, 30), implying that humane qualities such as intuition and empathy play a key part in conducting a design process. Therefore, a design process can be defined as an iterative, intuitive, explorative, ambiguous and organic process that cannot be standardized, and that lives and changes with the participants who take part in the process.

Even with no definitive, standardized design process model, there are several models that have aimed to visualize the sequence and common actions that are usually included in a design process, as the processes share commonalities (Design Council 2007, 10). For example, the Double Diamond model (Figure 16) that has been proposed by the British Design Council (Ibid., 10; Joore & Brezet 2014, 4) has divided the design process into four subsequent, diverging and converging phases. The diverging phases refer to stages where a multitude of various, alternative ideas are created, and convergent phases to ones where the options are narrowed down (Design Council n.d.). Another similar process model, described as human-centered design process (Figure 17), has been proposed by design consultancy firm IDEO (2015,

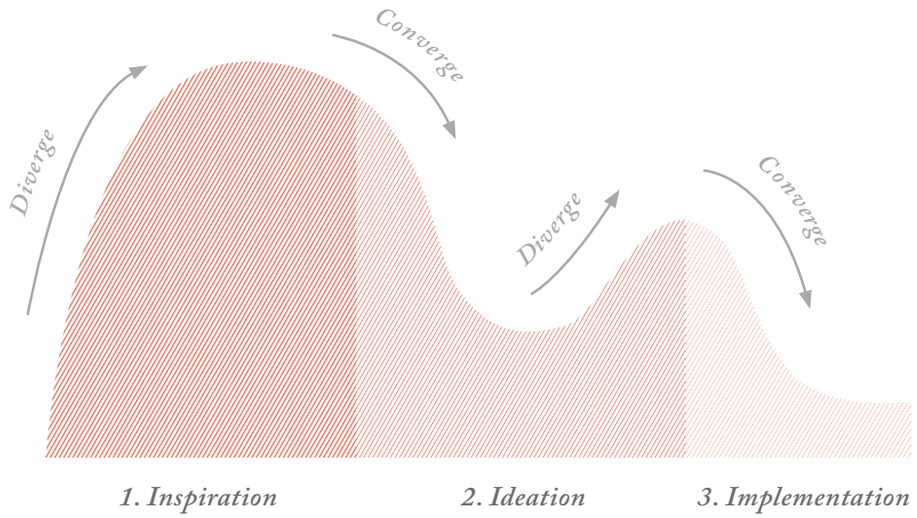


Figure 17: Human-centered design process
Based on IDEO 2015, 13

13), with the visualized model consisting of three diverging and converging phases. Brown and Wyatt (2010, 30) have described the model as "a system of overlapping spaces rather than a sequence of orderly steps", implying that the phases do not necessarily strictly follow a certain order, and that one can move back and forth between the phases in an iterative process. Both of these models follow a similar pattern: first, the process starts with a brief that provides "a set of mental constraints that gives the project team a framework from which to begin" (Ibid., 30). The brief should allow room for "serendipity, unpredictability, and the capricious whims of fate" (Ibid., 30) as the findings discovered in the early stages of the process may require re-adjusting or even changing the brief entirely (IDEO 2015). The brief is followed by the first phase where research is conducted of the context and users needs, which leads to redefining the brief according to the findings derived, and generating a number of ideas (Brown & Wyatt 2010). Up until the last phase where the final designs are implemented, various ideas are generated, prototyped, tested and evaluated in collaboration with stakeholders in the iterative process, as "feedback from the people we're designing for" forms "a critical part of how a solution evolves" (IDEO 2015, 25). This means that the process is shaped by the findings, validation and feedback derived throughout the process. Moreover, designers and participants of a design process are required to tolerate obscurity and uncertainty, especially in the front end of the process: "Human-centered designers always start from the place of not knowing the answer to the problem they're looking to solve" (Ibid., 23) as "you rarely get to new and innovative solutions if you always know precisely where you're going" (Ibid., 13). Therefore, it becomes apparent that the beginning phase of a design project is particularly important, as the findings derived at the front end shape and guide the direction for the rest of the process.

THE FUZZY FRONT END IN A CO-DESIGN PROCESS

The design process has changed over time, with the front end of the design process having gained particular emphasis in the 21st century, as design has become applied in addressing more complex issues by means of co-design (Sanders & Stappers 2012, 22). This first phase is often referred to as the "fuzzy front end" of a design process (e.g. Ibid., 22; Design Council 2007, 10), which denotes the early, often ambiguous stage where ideas and the direction for the design process are formed (Ibid., 10). Sanders and Stappers (2012, 22) elaborate the ambiguous nature of the fuzzy front end phase: "In the fuzzy front end it is often not known whether the deliverable of the design process will be a product, a service, an interface, or something else. The goal of this exploration is to define the fundamental problems and opportunities and to determine what could be … or should not be … designed". Thus, this phase involves utilizing various activities and methods in conducting open-ended research that not only aim to define the direction for the rest of the design process, but to discover and define the problems to be solved in the first phase (Ibid., 22). The starting phase is thus considered as the most critical phase in a design process (Joore & Brezet 2014, 4; Design Council 2007, 10), because "it is critical to defining the nature of the problem that is being addressed through design" (Ibid., 10). Therefore, it can be concluded that conducting the front end of the design process in an appropriate and participatory way is crucial for the success of the design process. The main reason for this is that the research and knowledge obtained from the stakeholders in the beginning helps identify the issues that are critical to be solved, which can steer the design process into a direction that is appropriate, hence more likely leading to outcomes that meet the real needs of the users.

Besides determining the problems to be solved by design as well as the direction for the remaining of the design process, there are several additional reasons why the front end phase gains particular importance in co-design. Sanders and Stappers (2012, 27-28) propose that the front end of the co-design process is linked to the generation of societal value, asserting that "the earlier in the design development process the co-creation occurs, the greater and broader the likely impact". By societal

> *Human-centered design is premised on empathy, on the idea that the people you're designing for are your roadmap to innovative solutions.*
>
> IDEO 2015, 22

value the authors refer to the long-term, sustainable impact that can potentially be accomplished by means of design. In order to induce societal value through co-design, it is essential to approach the problem to be solved in an open-ended and open-minded manner as the "determination of the form of the outcome is part of the challenge" (Sanders & Stappers 2012, 26). Furthermore, the authors point out that the generation of societal value usually requires tight collaboration between various experts and the users, with the establishing of empathy between actors through face-to-face communication and interaction perceived as essential (Ibid., 26). Riquelme (28.11.2018) also underlines the need to work with users and stakeholders "from day zero, before we even think what should be done". He argues that even though enabling participation in the front end of the design process may be perceived as time and resource consuming, conducting the front-end phase in a thorough and appropriate manner can ultimately, on the contrary, lead to saving resources and being economically beneficial in the long run (Ibid.). This is because it "will accelerate the decision-making" process once there is "clear information regarding who we are designing for and why" (Ibid.). Sanders and Stappers (2012) also view that enabling participation from the very beginning of the design process can lead to the generation of other types of value, such as monetary gains and improving the user experience of the design outcome in the long run. However, "practicing co-creation in the fuzzy front end will most likely produce the largest benefit in terms of societal value", which is why it is critical to enable participation from the beginning and throughout the design process, not only in the beginning phase (Ibid., 28).

The importance of face-to-face collaboration in co-design is further emphasized by Ikävalko (16.11.2018) and Riquelme (28.11.2018) for several reasons. Riquelme (28.11.2018) has observed that by being physically present a designer is able to follow the subtle gestures and spontaneous conversations between participants, which can significantly affect the interpretation and understanding of a certain situation or issue. Based on his experience, it is often the by-products generated through conversations that lead to pivotal key findings as "the different perspectives and things one did not even realize to be of importance turn out to be significant or even decisive" (Riquelme 28.11.2018). Therefore, face-to-face interaction can help obtain significant and sometimes even surprising data that would not have been possible to obtain through other means. However, Riquelme (Ibid.) also views that technological and digital tools can help enrich and complete the qualitative data obtained through face-to-face interaction. For example, whereas there are limitations to how many people can participate in co-design sessions, technology enables reaching out to larger masses of people, and can thus help obtain quantitative data to validate the qualitative findings (Ibid.). This point is affirmed by Ikävalko (16.11.2018) who perceives that contemporary technology and various channels, such as social media, should be utilized as a platform to both obtain data as well as to reach out and communicate with people. However, as face-to-face collaboration is affiliated with establishing empathy, it is viewed as essential in generating societal value in a participatory process (Sanders & Stappers 2012, 26). Empathy has been defined as "the capacity to step into other people's shoes, to understand their lives, and start to solve problems from their perspectives" which is why "human-centered design is premised on empathy, on the idea that the people you're designing for are your roadmap to innovative solutions" (IDEO 2015, 22). While it is self-evident that building empathy towards users is critical from the side of designer in order to establish an understanding of their situation and perspectives, it is also important to build empathy the other way around. This is because establishing a sense of reciprocal empathy and, thus, increasing mutual understanding between stakeholders can lead the participants to better understand each other's conflicting viewpoints, as well as help them form realistic expectations of the design process and its limitations (Ikävalko 16.11.2018). According to Ikävalko (Ibid.), enabling people to learn about the perspectives of other people through interaction and co-design can lead to significant savings of resources and acceleration of processes, especially in

> *. . . the main source of user satisfaction is not the degree to which a person's needs have been met, but the feeling of having influenced the decisions.*

Sanoff 2008, 67

urban design projects. This is further elaborated by Luck (2007, 220) who states that "learning is a two-way process: that the participants will learn more about design and the purpose … to have a better understanding of their situation, while the designers learn about the participants' situation". Therefore, face-to-face interaction between stakeholders plays a vital part in co-design, as it can improve communication and the exchange of knowledge and ideas, increase mutual understanding and hence lead to reciprocal learning, accelerated processes, and the generation of societal value.

THE SOCIAL IMPLICATIONS OF CO-DESIGN

While obtaining and incorporating the knowledge of users gained by experience into the design process is an important objective of co-design, there are various other, social benefits and implications that can be achieved by means of participation. One of the most central purposes affiliated with participation is empowerment (Mattelmäki & Sleeswijk Visser 2011, 2), as co-design "gives voice and tools to those who were not traditionally part of design process" (Ibid., 6). Allowing people to equally participate in a co-design process empowers them to "generate and promote alternatives to the current situation", highlighting the conception that "all people are creative" (Sanders & Stappers 2012, 20) and that "people want to express themselves and to participate directly and proactively in the design development process" (Sanders 2002, 2). Participation as an empowering act is further demonstrated in the statement that "people need not only to obtain things, they need above all the freedom to make things among which they can live, to give shape to them according to their own tastes, and to put them to use in caring for and about others" (Ivan Illich referenced by Fuad-Luke 2009, 148). The empowerment of individuals and groups can be achieved through working towards a shared goal and thus strengthening the relationships between community actors, which is why "active community participation is key to building an empowered community" (Sanoff 2008, 62). Thus, by giving people the power to control their own living

environments and encouraging them to be creative, participation can induce empowerment among the participants. Beyond empowerment, a participatory process can lead the participants to build a sense of community and ownership of the design process and outcomes (Sanoff 2008). A strong sense of community can further enable people to take part in efforts to solve challenges faced by the community, and to invest personal resources, such as time and effort, in working for common good and shared goals (Ibid., 61). Furthermore, by building a sense of shared ownership over the designed outcome, people can be more engaged in the design process and commit easier in "change-oriented goals" (Mattelmäki & Sleeswijk Visser 2011, 6). Hence, by providing people with an opportunity to affect the course of a design process instead of being informed about predetermined decisions, the level of resistance towards change may be decreased, and the users are also committed to further use and maintenance of the design outcomes after the solutions are implemented. Therefore, enabling participation can lead to various social implications, such as empowerment within the participants, both as individuals and as a community. Beyond the aforementioned implications, participation can also become a catalyst for a broader change within the community, environment and even society at large. With the idea of democracy at its core, co-design aims to create a decision-making process that is more transparent, open and fair (Fuad-Luke 2009, 147). Participation is strongly affiliated with emancipation, as it is "a form of design humanism aimed at reducing domination", where people are emancipated by "making them active contributors rather than passive recipients" (Ibid., 147). Thus, by enabling participation throughout the design process, a design process can be perceived as transparent, open and democratic by stakeholders, which can emancipate people and diminish resistance towards change. This point is further elaborated by Sanoff (2008, 67), who points out that "the main source of user satisfaction is not the degree to which a person's needs have been met, but the feeling of having influenced the decisions". The statement implies that creating a fair and equal opportunity for people to express their views and to participate in the process may be more important purposes in a co-design process than reaching a consensus. Moreover, a co-design process can provide people the platform and tools to initiate and create change themselves, potentially leading them to become proactive members of the community and society. Sanoff (2008, 66) views that, in participatory approaches, the research conducted on and together with participants is not merely "a process of creating knowledge", but also a mutual learning opportunity and an act of "mobilization for action". Thus, by empowering the community and providing them a platform for self-organization, the community can be encouraged to proactively create a change themselves. In this sense, a participatory design process can serve as a catalyst and a platform for inducing broader change by mobilizing the members of the community to act upon their environment. Based on these findings, it can be concluded that participation can have an immensely positive impact on not only the design process and its outcomes, but also within the community and the stakeholders themselves.

The idea of citizen participation is a little like eating spinach: no one is against it in principle because it is good for you.

Arnstein 1969, 216

4

Citizens as a resource in the urban context

> *The city isn't a mere static structure made up solely of physical attributes. It is a living and organic entity. A city is formed through actions and its atmosphere created by people and their encounters.*
>
> Timo Santala in Hernberg et al. 2012, 22-26

4.1 CITIZENS AS INITIATORS OF CHANGE IN CITIES

ABOUT THE CHAPTER

In this last theory chapter, the notion of participation is examined from another point of view: how citizens are enabled to contribute to shaping urban environments through direct participation. While it is acknowledged that citizen participation is not directly linked to the field of design, the chapter aims to establish a basic understanding of participation in the urban context and the means to practice it, as this perspective is relevant in approaching the case study part of the thesis. Based on the theoretical study, it is clear that users have become perceived as increasingly important players not only in the design context, but also in creating liveable, human-centered and vibrant urban environments. Citizens, i.e. the users of the urban spaces and services, are getting increasingly involved in proactively shaping their immediate living environments, which has also become recognized at the official city level (Hagert & Kiiski Kataja 2018). Over the past years, citizens have been provided with an increasing amount of channels and concrete tools to create an impact in their surroundings, and thus contribute to shaping both the physical environment as well as the activities that take place in the urban space. The fourth chapter builds on the remark that "cities are for the citizens" (Ikävalko at City as a Service 27.3.2019), as citizens are the actors who actively shape the city through their everyday activity, as elaborated by Timo Santala in Hernberg et al. (2012, 22-26):

> The city isn't a mere static structure made up solely of physical attributes. It is a living and organic entity. A city is formed through actions and its atmosphere created by people and their encounters. The city is an open space that residents should appropriate and cultivate as they see fit – instead of waiting for established institutions to do it for them.

Therefore, with a city conceived as a dynamic entity consisting of both physical and social dimensions, the focus of the chapter is on exploring how citizens can directly participate in shaping these dimensions in the urban context. By establishing an understanding of the different means and channels for citizens to create an impact in their living environment through both bottom-up and top-down directed processes, the role of a designer in this context can be further contemplated.

FROM TOP-DOWN TO BOTTOM-UP

In the 21st century, participation has not only transformed the field of design, but it has also changed the way in which urban environments are being developed (Ikävalko 16.11.2018). The immense societal transformations and progress of the past couple of decades have affected both the way in which participation is perceived by cities (Ibid.), and how citizens have started to take action on their environment themselves (Hernberg et al. 2012; Hagert & Kiiski Kataja 2018). While there are a number of contributing factors to this change, Ikävalko (16.11.2018) views that the emergence of social media is one of the key societal phenomena that have influenced the transformation of participatory culture at the city scale:

> Facebook has impacted the everyday lives of each and every one of us, as anybody can publish anything to anyone. This has also opened up the culture, processes and practices of urban planning. Decisions can no longer be made in closed cabinets and ivory towers. It is a really big societal change … It is not enough anymore that we inform about urban planning decisions that have already been made. That is not participatory, nor human-centered planning. (Ikävalko 16.11.2018)

It can thus be derived that social media has led cities to adopt more transparent, interactive and deliberative planning practices, where citizens are becoming increasingly involved as active participants. Besides contributing to a more participatory planning culture, technology-aided channels and tools have also provided people with

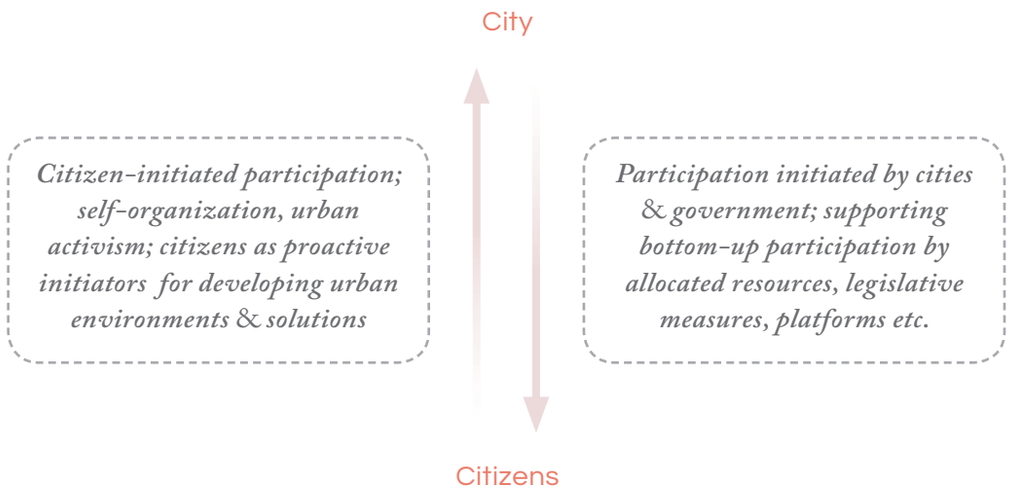


Figure 18: Top down & bottom-up directed participation

new means to share ideas and team up with others (Hernberg et al. 2012, 17). Thus, the progress of technology has opened new ways for people to practice direct participation, denoting means in which "citizens are personally involved and actively engaged in providing input, making decisions, and solving problems" (Nabatchi & Leighninger 2015, 14). Mäenpää and Faehnle (2016) view that social media and internet have enabled the forming of new actor networks that "will change the citizen society, as well as their design and development … It is not about participating in societal decision-making, but about direct actions taken to improve one's own urban environment, its spaces, affordances and functionality" (Ibid.). Therefore, the authors perceive that by providing a platform for people to assemble into networks, the internet and social media have enabled citizens to take direct action in their living environments without intermediaries (Ibid.). In a recently published interview (Hagert & Kiiski Kataja 2018), urban activist Jaakko Blomberg states that "people want other ways to make an impact, merely voting is not enough", further adding that "people demand that they get to make the city into what they want". Hence, it is evident that the culture of city development is changing to become more deliberative and interactive, with citizens becoming perceived as prominent actors who proactively participate in solving problems and creating an impact directly in the urban environment through self-organized action.

In the context of urban development, participation is often viewed to have two distinct, opposing approaches: top-down and bottom-up (Figure 18). Top-down usually refers to participation initiated by the government or other authorities, while bottom-up denotes "citizen-initiated participation" (Sanoff 2000, 175), where citizens participate through direct action. A central concept in the bottom-up directed participation is the notion of self-organization, referring to initiatives stemming from the citizens and communities either outside or at the borders of governmental control (Boonstra & Boelens 2011, 99; Hagert & Kiiski Kataja 2018). As self-organization and bottom-up directed processes are initiated by the citizens themselves, they are based on the needs of the local community, and thus require continued involvement of citizens (Sanoff 2000, 175). Boonstra and Boelens (2012, 101) assert that due to the increased level of urban complexity that has been induced by a number of societal changes such as improved access to information and progress of technology, an "unprecedented shift in the relative power of actors involved in spatial planning practice" has occurred that calls for urgent increase in "both the quantity and quality of citizen involvement". The authors propose that the focus in planning practices should be turned to the self-organized initiatives stemming from the citizens and communities, and to discovering how citizens could be harnessed and motivated to contribute to shaping urban environments (Ibid., 99). By recognizing self-organization as a prominent means to develop urban environments bottom-up, active citizenship can be built, with citizens encouraged to proactively take part in the development processes as well as share responsibility over the spatial environments with cities (Ibid., 100). Aligned with this view, Wallin (2015, 17) states that "in order to patch up complex urban change, it is necessary to apply methods of community development and co-governance, and to engage the local community and its initiatives". She views that local actors and actor networks should be allowed to obtain a more central role in urban development processes through participation, as it is these actors and residents who shape the neighborhoods through their everyday activities, and whose future is affected through the development of their living environment (Ibid.). Hence, citizen participation in the context of urban development does not only occur through controlled, top-down initiated means; instead, local actors should be recognized as prominent initiators of change in the urban environment, and self-organized, bottom-up directed initiatives as a form of direct participation that depict the genuine needs of the community.

URBAN ACTIVISM AS A FORM OF CITIZEN PARTICIPATION

One prominent example of the practical forms in

> *Designing new systems for a better functioning society that can utilize its potential both on an official and a spontaneous level is a key area for development. The best results are achieved when decision-making and citizens' ideas are allowed to interact and grow together in symbiosis.*

Hernberg et al. 2012, 34

which self-organization is visible in cities today is urban activism. Even though urban activism has formerly been strongly affiliated with reactive participation and political goals, today the general conception of the word has significantly changed (Meriläinen-Tenhu 2016). Contemporary urban activism can be defined as proactive, communal activity, in which social media is utilized for organization, with the primary aim to create a concrete impact on the urban environment and conditions through practical, direct action (Ibid.; Mäenpää & Faehnle 2016). Building on this definition, Meriläinen-Tenhu (2016) states that "urban activism emphasizes the role of the urban community as an independent actor, not as a target of participatory practices initiated by the public power. The need for the latter has not ceased to exist, but it has become accompanied by the demand for public practices that consider citizens as actors in the local reality of cities". Thus, it can be derived that while the need for top-down initiated participation also remains, people have changed from passive recipients to active participants, which leads to the need to re-establish the conception of participation in the urban environments. Today, citizens are perceived as proactive initiators, who directly participate in developing and shaping the urban space and activities that take place there, for example, by generating and initiating local, communal activities that aim to enliven their living neighborhoods (Meriläinen-Tenhu 2016). This phenomenon has also been identified as the emergence of the fourth sector, referring to the proactive self-organized activity and initiatives stemming from the citizens outside of governmental control or third sector organizations (Ibid.). However, even though a clear distinction is made between the two approaches, top-down and bottom-up directed participation are not necessarily exclusive and can complement each other, as elaborated by Hernberg et al. (2012, 34): "Designing new systems for a better functioning society that can utilize its potential both on an official and a spontaneous level is a key area for development. The best results are achieved when decision-making and citizens' ideas are allowed to interact and grow together in symbiosis". Therefore, both top-down as well as bottom-up initiated means for participation are needed, as they can enhance each other and contribute to establishing a culture of active citizenship. While top-down directed participatory means alone are perceived as insufficient as they can limit citizen power by harnessing participation to achieve goals that are in the interest of the government rather than the citizens themselves (Boonstra & Boelens 2011), they can also be applied to encourage and enable more active bottom-up participation. For example, by enabling and supporting bottom-up initiatives through allocated resources, platforms and legal regulations, cities can encourage citizens to become more proactive actors in initiating concrete action, and thus to be engaged in developing the shared urban space through community effort.

RECENT TOOLS FOR CITIZEN PARTICIPATION

In the context of Helsinki city, there are a number of prominent, recent examples of both top-down as well as bottom-up directed citizen participation. Over the course of the past few years, a number of top-down initiated means for participation have been introduced by the city of Helsinki to improve communication and enable citizens to initiate change in their environment, with participation emphasized as an increasingly central topic and value. The emphasis on participation is evident in the current city strategy (City of Helsinki 2017a) where it is stated that "Helsinki strengthens its position as the international pioneer of participation and openness" (Ibid., 5) and that "the city is built together" (Ibid., 3). In May 2018, the city of Helsinki introduced the new model of participation and interaction, with the aims to improve the utilization of the skills and knowledge of the citizens, to enable self-initiated,

voluntary activity, and to create equal opportunities for participation (City of Helsinki 2018a, 4). Along with this new model, two concrete tools were launched to improve the possibilities for citizen participation in practice: participatory budgeting and urban stewards (Ibid.). Participatory budgeting (translated: *Osallistava budjetointi*) is a model that is already practiced in several other countries in the world, that enables citizens to participate in initiating and determining the use of a limited amount of the city budget (Ibid., 29). In Helsinki, an annual budget of 4,4 million euros is distributed between different districts of the city, targeted towards developing and implementing local initiatives to improve the quality of the urban space in different neighborhoods (Ibid., 28-29). Within a timeframe of a year, a number of the citizen-initiated ideas are selected for further development, with people having the possibility to participate in voting for ideas and take part in their collaborative development for implementation (Ibid., 30). Urban stewards (translated: *Stadiluotsit*), in turn, are seven nominated employees of the city who are hired to boost regional participation within designated city districts and to work as mediators of interests between the citizens and the city (Ibid., 25-26). In practice, urban stewards work together with citizens locally both through social media and by meeting them at different events, aiming to map the needs of local residents and help them to realize self-organized initiatives (City of Helsinki 2018b). The goals of this initiative include accelerating the implementation of citizen-led initiatives and improving the collaboration and mutual communication between the city and the citizens (City of Helsinki 2018a, 26). Thus, the new participatory initiatives improve the possibilities for citizens to realize their ideas through allocated resources and streamlined processes, providing citizens with opportunities to address issues and initiate ideas that can be further developed and implemented by the city.

BOTTOM-UP DIRECTED CITIZEN PARTICIPATION IN HELSINKI

In addition to the newly introduced, top-down initiated means for citizens to participate in the development and improvement of their living environments, citizens of Helsinki have also begun to participate directly by actively initiating change and collectively acting on shaping their surroundings on their own terms. In the past ten years, Helsinki has become renown for its flourishing and vibrant urban culture, with citizens inducing change in the urban environment in various bottom-up directed ways, such as both organizing and participating in communal urban events (Hernberg et al. 2012), and actively taking part in discussions in various Facebook communities (Meriläinen-Tenhu 2016). For example, citizen-initiated event Restaurant day (Figure 19) has become an international phenomenon since it was launched in 2011 in Helsinki, with pop-up restaurant days being now organized in 74 countries worldwide (Meriläinen-Tenhu 2016). Since it was first organized, a number of other citizen-initiated events have been created in the urban space through community effort, gathering large crowds of participants and inspiring an increasing amount of people to contribute to enlivening their shared urban environment. Jaakko Blomberg views that "for many people, perhaps the most tactile and clearest experience of participation and democracy is when they get to … affect their own living environments and participate and do things together with others", which is why it is important to provide various possibilities for people to participate and act on their own (Jaakko Blomberg in Hagert & Kiiski Kataja 2018). "Action feeds action" meaning that "the more there is happening around you, the more you want to do things yourself" (Jaakko Blomberg in Hagert & Kiiski Kataja 2018). Thus, by providing a variety of direct means and support for people to participate in the shaping of their environment, a proactive culture can be created where citizens tackle problems firsthand and create low-threshold activities that further inspire other people to directly participate in the development of their environment.

Besides enabling the organization of communal events that provide people with a fun and easily approachable way to participate in cities without committing a great deal of personal time or effort

Figure 19: Restaurant day in Helsinki

Photo: Tuomas Sarparanta

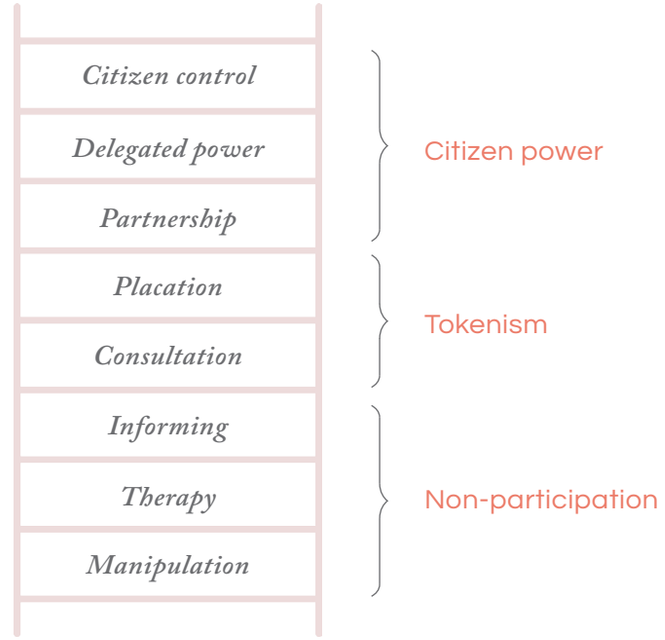


Figure 20: Ladder of citizen participation
Based on Arnstein 1969, 217

(Hagert & Kiiski Kataja 2018), social media has also provided people with a platform for the assembly of interest-based, informal digital communities that affect the urban environment in different ways. For example, discussion groups established on Facebook for the different neighborhoods of Helsinki had altogether over 100 000 members, and recycling groups over 300 000 members in 2017 (Autio 2017, 3). Another example is a Facebook group founded in 2009 called *Lisää kaupunkia Helsinkiin*, translating to 'More urban Helsinki', which aims to initiate discussion regarding how the environment of Helsinki could be developed to become more urban (Mäenpää & Faehnle 2016). Over the years, the group has become a prominent, active and multidisciplinary forum in which the members both initiate new and discuss existing development plans in the city (Ibid.). Furthermore, the group has become recognized as a prominent resource in the urban development practices also at the official city level, which has led to collaboration between the group and the urban development department of Helsinki city (Ibid.; Meriläinen-Tenhu 2016). While the purposes of the numerous established digital communities vary from responding to the practical needs of the local residents in their everyday lives (Autio 2017, 20) to intentionally affecting the urban environment and participating in decision-making processes, it is clear that the various Facebook groups have contributed to establishing a new communal culture in Helsinki where citizens proactively initiate and take part in interactive discussions regarding their shared urban environment. In contrast to the top-down initiated participation, there are various perks that can be associated with participation that stems from the ground up and utilizes social media as a platform and tool for interaction. For example, Meriläinen-Tenhu (2016) views that change can be induced in a faster and more efficient manner through urban activism than through governmental processes. Through bottom-up initiated participation, citizens can react and create a concrete impact in a way that is agile and does not necessarily consume a lot of resources. Furthermore, by acknowledging local actors as prominent contributors in urban development practices, the developed environments can better meet the needs of the users, citizens can better commit to change-oriented goals, the social ties between local actors may be strengthened and, possibly, a stronger and more attractive local environment and identity may be built (Wallin 2015, 27-28). Therefore, social media and digital communities can be established as important tools in enabling bottom-up participation, as they allow people to assemble, discuss, organize and turn ideas into concrete action. These examples of bottom-up participation also showcase the power that communities can have in inducing change in the urban environment - thus, acknowledging and harnessing citizens as a resource in transforming urban space can be turned into an invaluable asset in cities.

4.3 QUALITY IN CITIZEN PARTICIPATION

DEGREES OF QUALITY IN PARTICIPATION

With roots longer than in the design field, the quality of participation in the context of urban development and architecture has been a debated subject for several decades (Sanoff 2008). Already in her influential paper published in late 1960's, Arnstein (1969) identified a wide spectrum in variation regarding the quality in which participation can be conducted. Similarly as in design context, citizen participation in the urban context aims to distribute power to those without it, as elaborated by Arnstein (1969, 216): "There is a critical difference between going through the empty ritual of participation and having the real power needed to affect the outcome of the process … participation without redistribution of power is an empty and frustrating process for the powerless. It allows the powerholders to claim that all sides were considered, but makes it possible for only some of those sides to benefit". She illustrates this claim by introducing "a ladder of citizen participation", (Figure 20) with eight rungs that represent the varying levels of citizen power, i.e. the extent to which citizens are allowed to affect the determination of the end results in planning practices (Ibid., 217). The rungs range from "manipulation", the lowest level of "non-participation" at the bottom, to "citizen control" at the top, which she considers as

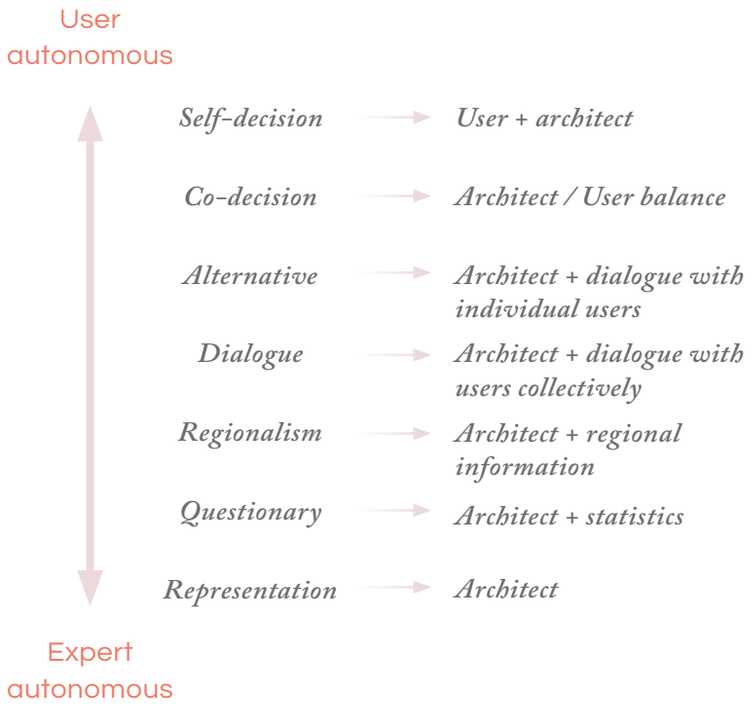


Figure 21: Levels of participation in urban planning & architecture
Based on interpretation of Wulz 1986 by Nilsson et al. 2011, 236

the ultimate level of citizen participation (Arnstein 1969, 217). The middle part of the ladder represents tokenism, referring to participation where citizens are allowed to "hear and be heard", but where there is no guarantee that the views of citizens will affect the outcomes of the planning process (Ibid., 217). A similar model is also presented by Wulz (1986, 153-155), who states that "participation can be active or passive", and identifies seven stages of participation between the poles of expert autonomous and user autonomous architecture (Figure 21). Even though the presented models may be regarded as obsolete in terms of publishing dates, both Arnstein (1969) and Wulz (1986) point out an important point regarding participation in the urban context: there are various levels of quality to which citizen participation can be conducted. As it has been established that genuine participation presumes distribution of decision-making power to the participants, conversely insufficient, low quality participation can be ineffectual, and at worst even counterproductive (Nabatchi & Leighninger 2015, 6).

Based on the study conducted for the thesis, it is apparent that participation is, still today, conducted in varying degrees of quality. Ikävalko (16.11.2018) points out that participation per se does not guarantee quality in a development process, and that it is part of the designer's professionalism to determine whether participation is the appropriate approach for each case or not. However, in the cases when participatory approach is applied, it is considered of critical importance to conduct participation in high quality, and for determined purposes (Ibid.). According to Luck (2007, 218), in spite of the fact that participation is widely practiced and accepted in planning practices, the participatory approach is also criticized because the suggestions proposed by citizens are often ignored in the process outcomes. A similar remark is also made by Riquelme (28.11.2018) who has observed that participation is sometimes used as a means to validate predetermined decisions, rather than as an opportunity to genuinely discover the viewpoints of users. In several cases, participation has been enabled only later in the development process, and the ability

of users to influence the decisions has been limited to banal and small-scale details (Riquelme 28.11.2018). In Riquelme's experience, limiting the room for participation in such a confined way can lead to frustration and the stirring of negative attitudes among people, as "it is not a real conversation, not a dialogue, to inform about a plan and ask people to tell how they feel about it" (Ibid.). Furthermore, Helander (3.12.2018) points out that participation is often viewed as a confrontation between the city and the citizens, where citizens either defend or protest against the plans made by the city. She contemplates that if interaction started from the point where neither the city or the citizens knew what the outcome was going to be, the conversation could be more fruitful as the process and the outcome of that process would be products of interactive collaboration and deliberation between stakeholders (Ibid.). According to her, such participatory processes are currently lacking, mainly because they are perceived to consume resources excessively; as a result, many view participation as merely a legal obligation in the development of cities (Ibid.). It can thus be derived that the prevailing participatory practices are viewed by some as a retardant in the process, and as an obligation that may lead to compromises in the quality of planning results due to the fact that participation is often conducted in low quality (Ikävalko 16.11.2018). Hence, participation conducted in poor quality can lead to the wasting of resources and mutual frustration, with the low quality often the consequence of multiple factors, such as prevailing misconceptions, inadequate resources and lack of knowledge. Therefore, it becomes evident that conducting participation in an appropriate manner and in high quality for pre-determined purposes in the process is crucial for resulting in adequate and appropriate outcomes.

DEFINING HIGH QUALITY CITIZEN PARTICIPATION

Based on the theory review of the thesis, it can be concluded that there are various factors and attributes that contribute to high quality participation in the urban context, and that it can significantly vary

between projects what those qualities are. Riquelme (28.11.2018) views that among the most important factors in participation in the urban context are enabling people to genuinely affect the development plans from the very beginning, and that participation is not limited to small-scale details. According to him, participants should be allowed to obtain a significantly more active role throughout the process, from defining the reasons for why change is necessary before deciding what should be done in the first place (Ibid.). Thus, even though it is also important to validate the direction of the plans throughout the development process to ensure that the objectives match with the needs of the users, that should not be the sole purpose of participation (Ibid.). Instead, it is proposed that participation can be used to create a deliberative, equal and open development process that emphasizes the role of citizens as valuable contributors, which can potentially induce broader implications on the community at large. Moreover, Riquelme (28.11.2018) perceives that it is important for the facilitators of the participatory process to build a relationship with the citizens; by establishing a relationship, a sense of trust can be built, which may lead to people sharing more knowledge and committing to the process more eagerly. Thus, establishing a sense of trust is essential in participation, yet it also demands time, effort and persistence (Ibid.). It can therefore be derived that identifying the relevant, key actors and enabling them to participate throughout the process is essential, as this enables the building of commitment, relationship and trust between the actors, which can further lead to accelerated processes and more appropriate outcomes.

Another conclusion that can be established regarding the quality in participation is that participation in the urban context has formerly mainly relied on three distinct channels: indirect voting, attending public hearings, and filing complaints (Nabatchi & Leighninger 2015, 6). Nabatchi and Leighninger (2015, 6) assert that these conventional forms of participation are "at best, insufficient and, at worst, detrimental", and elaborate this claim by stating the following: "People are mistrustful of, angry

> *To realize the full potential of participation, we need to focus on what citizens actually want: problem solving, civility, and community.*
>
> Nabatchi & Leighninger 2015, 6

at, and unfulfilled by public life, in part because of the public participation opportunities they are (and are not) being offered. … To realize the full potential of participation, we need to focus on what citizens actually want: problem solving, civility, and community" (Nabatchi & Leighninger 2015, 6). The authors view that public participation should be supported by a comprehensive participation infrastructure, and thus enable the exchange of information, provide people with different choices to choose from, support various means to take action, as well as make participation convenient and enjoyable for the citizens (Ibid., 38). Ultimately, participation can become a means to improve the quality of life, and have various impacts on citizens, communities and governance (Ibid., 38). Ikävalko (16.11.2018) perceives that one of the key goals in enabling citizen participation in urban development projects is to increase mutual understanding, not only between the citizens and the city but also among citizens themselves. She has observed that urban development processes are often prolonged by complaints filed by citizens, because complaining is often the only means of participation that the citizens are provided with to affect the development processes (Ibid.). According to her, complaints are often consequential of insufficient knowledge and poor communication, which is why improving reciprocal communication in development processes is crucial (Ibid.). When conducted in high quality, participation and co-creation can be a mutually "eye-opening" experience for different stakeholders, as the process enables open communication and provides equal opportunities for all stakeholders involved to express their opinions (Ibid.). Based on her own experiences as an urban designer, Ikävalko (Ibid.) further claims that high quality participation can decrease and even eliminate the number of complaints altogether, which can accelerate the development processes and thus lead to significant savings in time, money and other resources. For these reasons it can be concluded that enabling mutual communication throughout the process and providing various, convenient and equal opportunities for participation are among the key attributes in high quality participation in the urban context.

> *Citizen's attachment to places in their community can help to inspire action because people are motivated to protect and improve places that are meaningful to them.*

Sanoff 2008, 61

POTENTIAL IMPLICATIONS OF HIGH QUALITY PARTICIPATION ON THE COMMUNITY

The theoretical study of the thesis suggests that, when conducted in high quality, participation can ultimately lead to achieving various positive implications and benefits in the participants, communities, and even the society at large. First of all, participation can increase the level of social capital, which is a community asset that refers to the quantity and quality of the social relationships and networks within a community (Sanoff 2008, 61-62). Social capital thus is a measure of the relations and a sense of trust that are formed between community members, that can be strengthened through participation (Ibid., 61-62). Furthermore, at the urban scale, participation can help integrate minorities into the society, and thus contribute to social coherence (Boonstra & Boelens 2011, 100). Through participation, people learn better to articulate their views, needs and desires, as well as share responsibility over the urban environment with cities (Ibid., 100). Sanoff (2008) views that participation can contribute to establishing a sense of community as well as group ownership over an environment or matter, when all participants are allowed to equally contribute to the process by sharing their views and providing input. A strong sense of community may lead people to voluntarily invest personal time and effort into community affairs, as well as encourage citizens to collectively tackle community issues together with others. Additionally, participation in the development of a particular urban environment or area can build attachment to places, which can lead to a higher motivation among citizens to participate in the urban development process. "Citizen's attachment to places in their community can help to inspire action because people are motivated to protect and improve places that are meaningful to them", which is also why establishing a sense of place can be perceived as a precondition for developing a sense of community among neighbors (Ibid., 61). Similarly as in design context, participation empowers citizens both as individuals and as communities by enabling them to work towards shared goals and for the good of the community (Sanoff 2008, 62). A collaborative decision-making process can further lead to the building of consensus, as "through shared discovery, where people listen to each other and identify points of agreement and disagreement, a process of co-sensing is achieved" (Ibid., 65). However, achieving a consensus is not necessarily the ultimate goal in a participatory decision-making process; rather, the aim is to conduct the process in a democratic, open and fair way, by enabling people to express their views, take part in shaping the decisions and thus directly affect the decision-making process (Ibid.). Moreover, citizen participation can help bridge the perceived gap between citizens and the government as it enables different stakeholders to collaborate and deliberate on issues (Boonstra & Boelens 2012, 101). This can lead to the process objectives better meet the needs and priorities of citizens, while simultaneously enabling the citizens to gain a comprehensive and realistic understanding of the issues in question, which can further result in more focused processes and outcomes (Ibid., 101). As it has been elaborated, high quality citizen participation can lead to various social, economic, spatial and even political implications (Ibid.) that may have extensive impact on not only the processes and outcomes but also citizens and communities themselves. Therefore, high quality participation can be established as a vital part in developing urban environments, as it not only accelerates processes and improves the quality of outcomes, but also empowers community to act upon their own environment and contributes to active citizenship, where citizens initiate change that stems from their own needs and motivation.

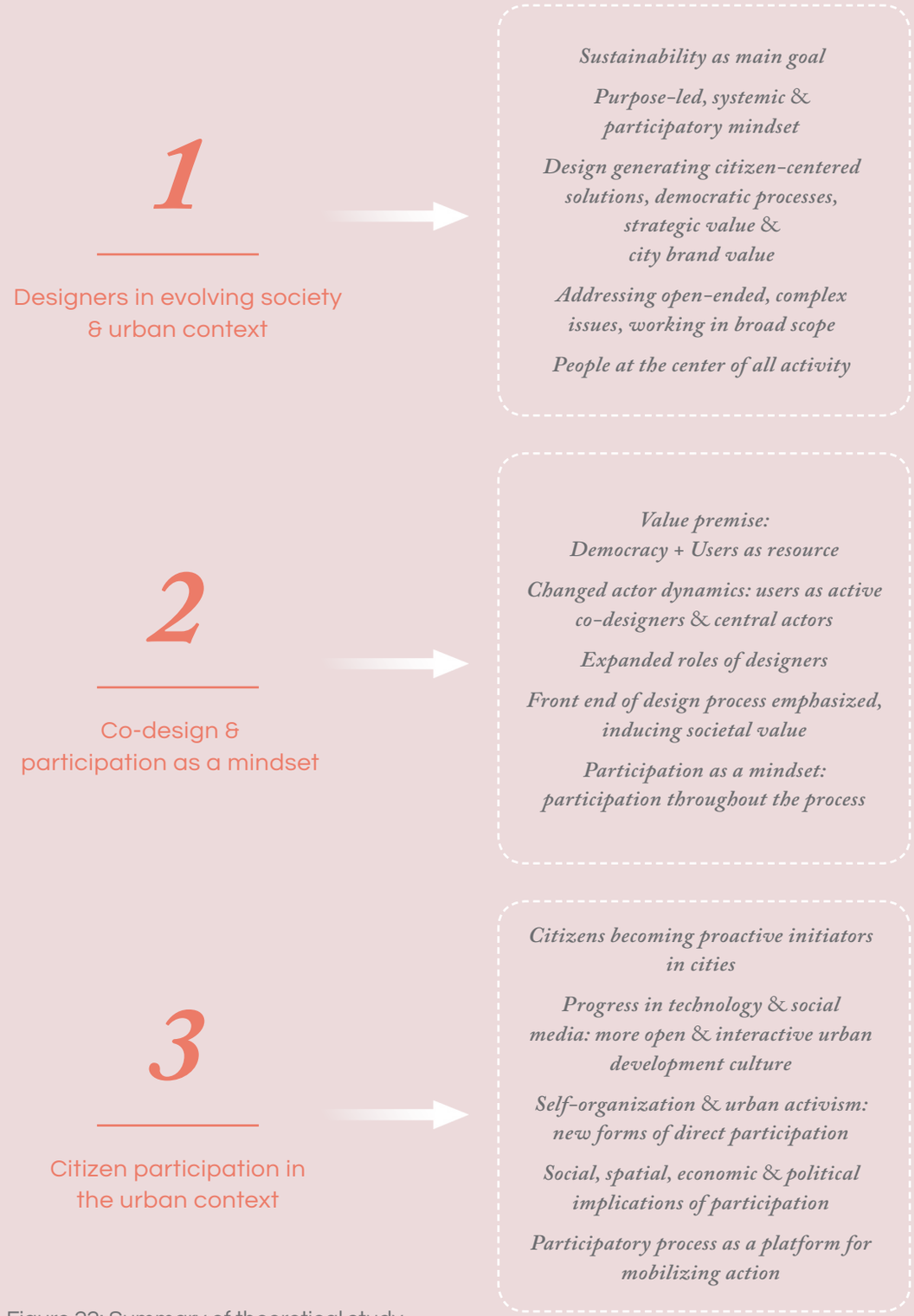


Figure 22: Summary of theoretical study

5

Summary of initial theory findings

5.1 SUMMARY OF THEORETICAL STUDY

To summarize the theoretical study, there were three topics that were examined: design in the society and urban context, participation in design, and participation in cities (Figure 22). In the first theory chapter, the transformation of design as an approach and profession was discussed against broader changes in the society, with the aim to understand why and how designers have begun to address complex issues in the scale of cities. It was established that design as an approach and profession is in constant flux, as it depicts the values and changes in the continuously evolving society. The immense social, ecological and economical challenges of contemporary society have led designers to begin tackling broader and even societal challenges, with sustainability as the newly adopted main goal of design profession. With a mindset that is purpose-driven, systemic and participatory, designers have in the past decade begun to work in the context of cities as urban designers, where they co-develop human-centered and sustainable environments, services and solutions in collaboration with both cities and citizens. In the second theory chapter, the notions of participatory design, co-design and co-creation were examined, with the goal to establish a comprehensive understanding of the purposes, means, process and practices affiliated with the participatory approach in design. It was identified that participation builds on two distinct premises: the idea of democracy as a value, and the perception of users as invaluable sources of knowledge regarding their own experiences. This premise has led the role of users change from passive informants to active co-designers, which has also expanded and diversified the roles that a designer adopts in a participatory design process. Furthermore, it was discovered that when approaching participation and co-creation as a comprehensive mindset, the importance of the front-end of a design process is emphasized, as enabling stakeholders to participate from the very beginning in defining the issues to be solved and throughout the process can induce broader, societal value. Finally, in the fourth and last theory chapter, participation was further examined in the context of

Figure 23: Summary of implications of high quality participation

cities, with the focus on understanding how citizens and bottom-up processes have become viewed as an important asset and a powerful resource in shaping urban environments. Ultimately, it was established that participation, when conducted in high quality and appropriate manner, can lead to various social, spatial, economic and even political benefits (Figure 23). A participatory process can become a platform for the community to assemble and become empowered to initiate self-organized action on their living environment, which can catalyze broader change in the community, and even the city at large. In the following sections, further key findings are summarized regarding the potential implications of participation on the community members who participate in development processes, as well as the initial, identified roles that a designer might adopt in conducting a participatory process in the urban context. The summarized findings set the starting point for the second part of the thesis, the case study, in which the potential roles of a designer in aiding a community-driven process are examined at a more practical level.

5.2 THEORY FINDINGS, I: THE POTENTIAL IMPLICATIONS OF CO-DESIGN ON PARTICIPANTS

Based on the theory review, it can be derived that participation in both design and the urban context can have broad positive implications that extend beyond improving the quality of the process outcomes. By enabling citizens to participate in the deliberative decision-making processes regarding the development of their own living environments, they can be empowered and emancipated, as they are granted with the power to create an impact on their surroundings. When provided with an equal opportunity to participate in the process from the very beginning, in determining the issues to be solved and contributing to defining the process direction and goals, a sense of group ownership can be created, and the process can be perceived as democratic, fair and transparent. This can diminish resistance towards change and enable citizens to be engaged in change-oriented processes, where they are motivated to invest personal time and effort in working towards shared goals and for the common good. With citizens perceived as invaluable sources of knowledge and expertise, the experiences of users can be obtained and utilized in the process, which improves the chances of the process outcome being effective. Through face-to-face collaboration and communication, learning is enabled and mutual understanding can thus be increased, with a sense of empathy built between stakeholders and citizens provided with more realistic expectations regarding the process and outcomes. Ultimately, an equal participatory process can increase the level of social cohesion and social capital within a community, strengthen the social ties between community members, and thus also lead to an increased level of social resilience. By enabling citizens to take part in the development of environments that they care for, a sense of place can be established, which further contributes to strengthening the sense of community. Establishing a sense of place increases the motivation of citizens to participate in the development of their shared environment, and also leads people to commit to long processes and sustained maintenance of finished, implemented environments. Furthermore, by enabling citizens to initiate change through concrete action in bottom-up directed processes, active citizenship can be encouraged, with citizens tackling problems firsthand and improving the city through experimentative initiatives. Therefore, it can be concluded that enabling participation in the urban context can have broad positive consequences, not only on the outcomes of the process but also within the participants and communities themselves.

5.3 THEORY FINDINGS, II: THE INITIAL ROLES OF A DESIGNER IN A CO-DESIGN PROCESS

There are various roles initially identified for a designer to potentially adopt in a participatory process, and skills that can be utilized in that process when conducted in the urban context (Figure 24). First of all, a designer becomes a facilitator of both the whole participatory process as well as the co-design events that are an inherent part of that process. Thus, a designer facilitates interaction, and therefore becomes a mediator of interests,

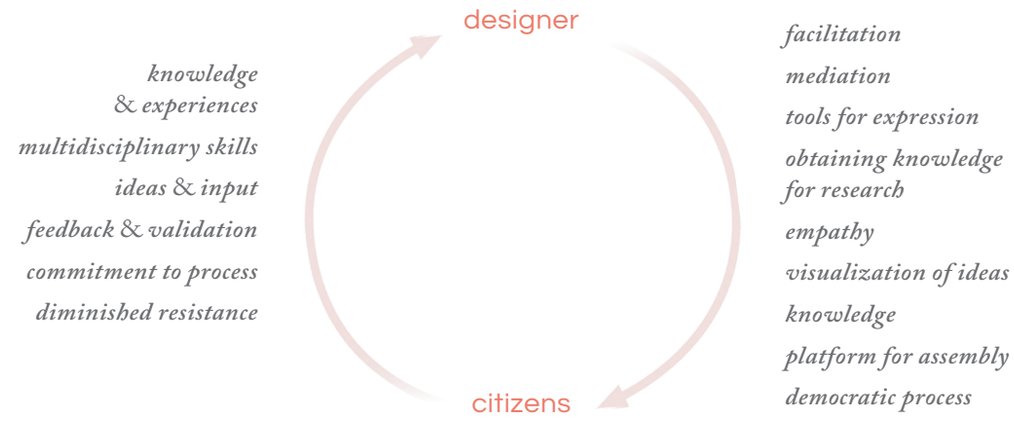


Figure 24: The roles between designer and citizens in the urban context

a coordinator between stakeholders, and also an interpreter of needs by applying visual language for communicative purposes. By establishing a sense of empathy and approaching problems in a human-centered, empathic way, a designer is able to ask the right questions relevant for the process, and obtain knowledge that informs and inspires the design process in an appropriate and adequate manner. This leads the designer to adopt the role of a design researcher, who obtains data and information by utilizing various methods, such as observation, interviews and applied visual, creative tools and methods of co-design. In order to obtain that knowledge and to facilitate interaction, a designer needs to also create and provide the relevant tools for the non-designer stakeholders to express themselves, and interpret the data into well-informed analysis, decisions and solutions. By thinking in systems, a designer is able to assess that data against the broader entity of the topic, identify patterns and make conclusions, which will further be translated into prototypes, visualizations and solutions. With the ability to visualize abstract matters at the core of design profession, a designer can communicate ideas visually, and construct physical artifacts and prototypes of complex ideas. A designer can also take part in a co-design process as a co-designer among the other participants, providing specific expertise and point of view in a design process. As urban designers, designers can additionally utilize their various other skills to co-create solutions for the needs of citizens; for example, the approach of a designer is future- and change-oriented, which means that a designer creates always solutions for future needs instead of present needs. Furthermore, designers approach problem-solving with experimentation and iteration, which provides contrast to the long-term processes conventionally affiliated with urban development projects. By adopting the aforementioned roles and skills in facilitating a participatory design process in the urban context, a designer also acts as an enabler: an enabler of participation, and thus an enabler of harnessing citizens as a transformative resource in the urban context.

The theoretical study suggests that, in a participatory process, the role of a designer is relevant and even critical, with an emphasized importance in the urban context. As a facilitator of a participatory process, it is the designer who builds the relationship with the participants by being present in the co-design sessions and facilitating the interaction. Designer provides the participants with the tools for carefully predetermined purposes, with the aim to obtain data that is meaningful and adequate. Moreover, the designer processes, assesses and interprets the data obtained from stakeholders against the comprehensive, systemic issue, and makes well-informed decisions that guide the design process all the way to implementation. By obtaining the role of a mediator between different stakeholders and becoming a facilitator of interaction, the communicative role of a designer is emphasized. For example, in the urban context, urban designers work as mediators of interests between the city and citizens, and thus contribute to improving communication between the two different actors. The communicative role is further highlighted in designers' abilities in visualization and concretizing abstract matters, that are valuable in increasing mutual understanding and engaging citizens in striving for common goals. Through a shared, visual language, a designer can communicate ideas, information and concepts, and further construct and build prototypes to be tested by the participants. In a co-design process where it is the users and other stakeholders who have the most central role and whose input is considered the most valuable in order to create appropriate design results, the responsibility of a designer is highlighted. This means that a designer needs to approach the process with an open mind without steering the process or results, and establish a sense of genuine empathy towards the participants. The responsibility also extends to applying and selecting appropriate methods to obtain the information, and interpreting the data gathered from the research. In a successful participatory process, a designer, and the design process, may even become catalysts for change; by providing a platform for the community to assemble and collaborate on issues that matter for them, citizens can be empowerd, engaged and mobilized to take action themselves.

PART II

Case Study

6

Contextual study: Konepaja as a generative urban element in Helsinki

Figure 25: Konepaja in Vallila, Helsinki

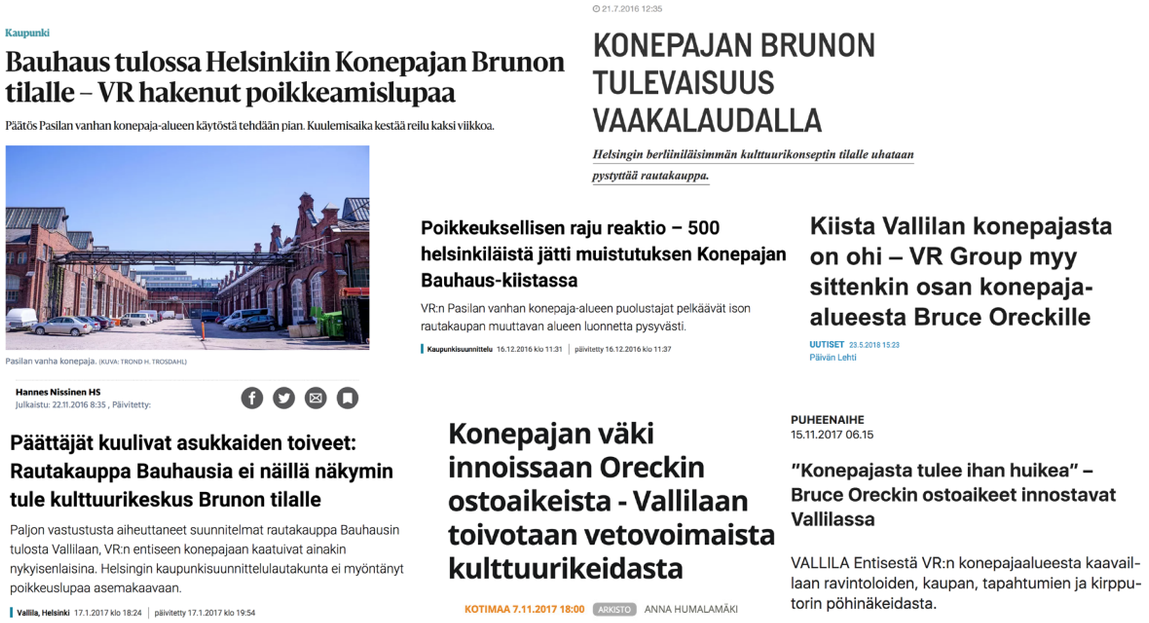
Photo: Antti Kolppo

6.1 INTRODUCTION TO THE CASE STUDY

KONEPAJA AS A CASE STUDY SITE

The case study site of the thesis is an area known as Konepaja, located three kilometers away from Helsinki city center in a valley between the neighborhoods of Vallila, Eastern Pasila and Alppiharju (City of Helsinki 2014, 6). Also known by names *Vallilan konepaja* and *Pasilan konepaja*, the site is a former train carriage workshop (Figure 25) that has been underused since its operations were shut down nearly two decades ago, after a full century of operating (Huttunen et al. 2012a). The site is known for the distinctive train workshop buildings designed by architect Bruno F. Granholm at the turn of the 20th century, with the site today acknowledged as an architecturally invaluable built environment in Helsinki (Ibid., 40). Since the workshop operations were permanently shut down in 2003 (Ibid., 5), the buildings have remained, to a large extent, empty and underused for nearly 20 years, with the condition of the invaluable edifices slowly deteriorating. However, this situation is currently in flux: over the recent years, the site has become known in the city for the small-scale creative entrepreneurs, businesses, venues and temporary uses that have occupied parts of the buildings, catalyzing the gradual development of a distinctive place identity and new uses at Konepaja. The most prominent of these actors is Konepajan Bruno, a cultural venue operating at the premises of the main building, that has become known for various cultural and communal events and happenings since its opening in 2015 (Parkkinen 2017). Although the small-scale entrepreneurs of the site have significantly contributed to the increased attractivity of the formerly neglected area (Hämäläinen 2017), the site had, until recently, lacked foreseeable development plans or investment that would enable restoring the built environment to accommodate further use. With the surrounding areas around Konepaja currently rapidly evolving into modern residential and commercial districts (City of Helsinki 2017b), the future uses and development of Konepaja area have also become a current topic of public discussion, and even debate, over the past few years.

With the recently emerged small-scale grassroot activity and urban culture of Konepaja acknowledged as prominent and distinctive assets, the citizens of Helsinki have over the past years become active advocates for conserving and amplifying the sparked, unique atmosphere and activity of the area. Konepaja was brought into headlines in 2016, with an announcement regarding the plans to convert the architecturally invaluable buildings into commercial and parking spaces for a multinational hardware store chain (Nissinen 2016). The piece of news stirred controversy among the citizens and led to a strong public reaction against the proposed plans (Koivisto & Rita 2016; Parkkinen 2017). For example, a petition was signed by 12 000 people to protect Konepajan Bruno from being shut down (Nissinen 2016), further demanding that Konepaja area should be developed to facilitate "activities that correspond to the value of the site and enrich the urban cityscape also in the future" (Konepajan Bruno n.d.). Furthermore, 500 citizens, an unusually high amount of people, filed an official notice to the city of Helsinki against the plans (Koivisto & Rita 2016), which eventually led the city to revoke the request of the former owner to convert the city plan of the site in a way that would allow the proposed commercial use (Parkkinen 2017). Nearly a year later in November 2017, a private investor Bruce Oreck announced that he was planning to purchase the largest building complex of the site, with the aim to renovate and restore the buildings and to develop the future uses of the site in collaboration with the community (Nelskylä 2017). In contrast to the opposition of the public that had occurred in 2016, the vision proposed by Oreck was received with widespread support from both the entrepreneurs and citizens alike (Hämäläinen 2017; Humalamäki 2017). Following several months of prolonged and complicated negotiations with multiple prospective buyers, the negotiation process eventually ended in Oreck's favor in May 2018 (Siippainen 2018). While there were several factors that affected the negotiation processes in 2016 and again in 2018, it was evident that the strong reactions of the community and the consequent public pressure put on the former owner of the buildings played a pivotal part in



Kaupunki

Bauhaus tulossa Helsinkiin Konepajan Brunon tilalle – VR hakenut poikkeamislupaa

Päätös Pasilan vanhan konepaja-alueen käytöstä tehdään pian. Kuulemisaika kestää reilu kaksi viikkoa.

Pasilan vanha konepaja. (KUVA: TROND H. TROSDAHL)

Hannes Nissinen HS
Julkaistu: 22.11.2016 8:35 , Päivitetty:

Päättäjät kuulivat asukkaiden toiveet: Rautakauppa Bauhausia ei näillä näkymin tule kulttuurikeskus Brunon tilalle

Paljon vastustusta aiheuttaneet suunnitelmat rautakauppa Bauhausin tulosta Vallilaan, VR:n entiseen konepajaan kaatuivat ainakin nykyisenlaisina. Helsingin kaupunkisuunnittelulautakunta ei myöntänyt poikkeuslupaa asemakaavaan.

Vallila, Helsinki 17.1.2017 klo 18:24 | päivitetty 17.1.2017 klo 19:54

21.7.2016 12:35

KONEPAJAN BRUNON TULEVAISUUS VAAKALAUDALLA

Helsingin berliiniläisimmän kulttuurikonseptin tilalle uhataan pystyttää rautakauppa.

Poikkeuksellisen raju reaktio – 500 helsinkiläistä jätti muistutuksen Konepajan Bauhaus-kiistassa

VR:n Pasilan vanhan konepaja-alueen puolustajat pelkäävät ison rautakaupan muuttavan alueen luonnetta pysyvästi.

Kaupunkisuunnittelu 16.12.2016 klo 11:31 | päivitetty 16.12.2016 klo 11:37

Kiista Vallilan konepajasta on ohi – VR Group myy sittenkin osan konepaja-alueesta Bruce Oreckille

UUTISET 23.5.2018 15:23
Päivän Lehti

Konepajan väki innoissaan Oreckin ostoaikeista - Vallilaan toivotaan vetovoimaista kulttuurikeidasta

KOTIMAA 7.11.2017 18:00 ARKISTO ANNA HUMALAMÄKI

PUHEENAIHE
15.11.2017 06.15

"Konepajasta tulee ihan huikea" – Bruce Oreckin ostoaikeet innostavat Vallilassa

VALLILA Entisestä VR:n konepajaalueesta kaavaillaan ravintoloiden, kaupan, tapahtumien ja kirpputorin pöhinäkeidasta.

Figure 26: Headlines regarding the negotiation process over ownership of Konepaja, 2016-2018

impacting the direction of the future development of the area in both of the cases (Figure 26). Thus, by acting as strong and vocal advocates for the existing grassroot activity in the area, the community had also become a steering force in the official development process through citizen-led action. The potential of Konepaja being developed in a bottom-up way to foster the existing communal urban culture sparked by the small entrepreneurs was widely recognized as an irreplaceable asset, which would have inevitably been diminished, had the request for the city plan conversion been accepted in 2016. Therefore, with the community identified as both an initiator of change and a vocal and powerful advocate for the area, it becomes relevant to contemplate how the community could potentially be harnessed as a resource for the future development of Konepaja in a bottom-up directed, citizen-driven way.

CASE STUDY STRUCTURE & OBJECTIVES

The case study consists of two distinct sections, where the material gathered during the fieldwork period in 2017-2018 is summarized, elaborated and analyzed. The first part is a contextual study, where the past and the present state of Konepaja as an urban area are summarized. The area is thus scrutinized more objectively through its cultural, physical and permanent qualities - the history, architecture and location of the site - with the focus on elaborating the attributes that make Konepaja unique and invaluable as an architectural site in the context of Helsinki city (Figure 27). There are two reasons why the decision was made to conduct contextual study in a thorough and broad manner. The first reason is that the architecture, history and location in relation to the surrounding city are perceived as key assets that have made Konepaja into what the site is today, and that can also be identified as important attributes in determining the future uses of the site. Thus, in order to make conclusions of how Konepaja could potentially be developed in the future, it is regarded as essential to understand the past and present states of the area as well. Second of all, as the findings of the theoretical study of the thesis suggest, conducting a thorough contextual study is perceived as crucial

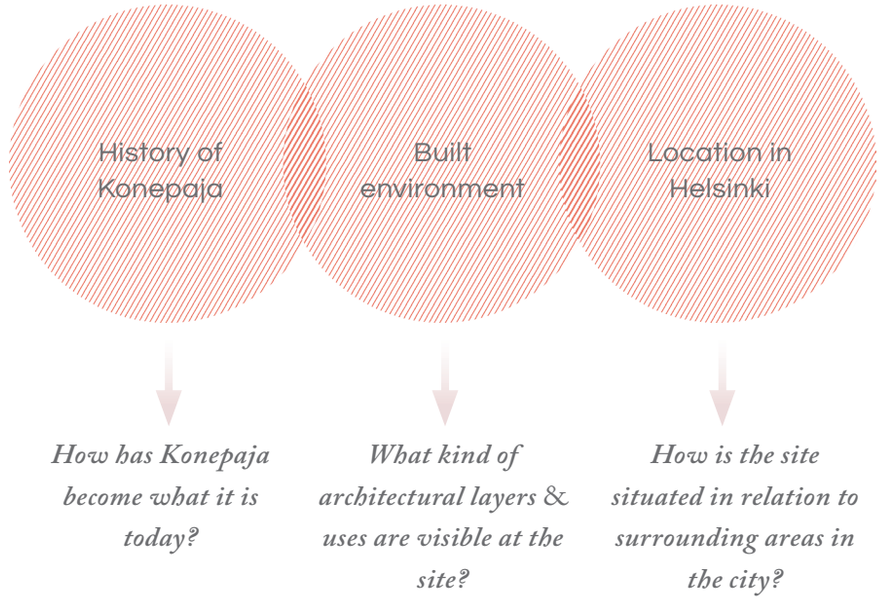


Figure 27: Three lenses of the contextual study of Konepaja

when working in the urban context. Hence, the broad scale in which a designer is required to work in the context of cities, with urgency in understanding the systemic interdependencies and comprehensive entity of complex issues in a holistic manner, is demonstrated. The case study sets the starting point for the analysis chapter, in which the fieldwork findings regarding the community and the initial, shared vision for the future development of the area are analyzed and interpreted. In practice, the most relevant key stakeholder groups for the development of Konepaja are identified, and their motives and interests regarding the site are summarized based on the fieldwork observations. It is argued that by harnessing the community as a resource and enabling the bottom-up directed, sustained development process for the area that stems from the actions of the community, a strong and distinctive place identity can be built. This can contribute to the development of Konepaja into the heart of the neighborhood; a socially sustainable, unique and vibrant area, that can become a prominent and distinctive urban attraction also in the broader scale of Helsinki city. In the analysis section, this claim is further elaborated, ultimately leading to contemplating how the development of Konepaja could be approached as a case of co-design. Finally, in the conclusions chapter of the thesis, the potential roles that a designer might adopt in the participatory development process of Konepaja are proposed and discussed.

6.2 CONTEXTUAL STUDY: THE PAST & PRESENT STATE OF KONEPAJA

HISTORY OF KONEPAJA

Konepaja, formerly known as Fredriksbergin konepaja, begun its operation as a train carriage workshop in 1903 (Figure 28) (Huttunen et al. 2012a, 16). The decision made in 1898 to build the new workshop facility (Ibid., 16) stemmed from the rapid expansion of the railroad network in Finland in the latter half of the 19th century, which had begun with the construction of the first national railroad connection between the cities of Helsinki and Hämeenlinna in 1862 (Ibid., 30). As the need

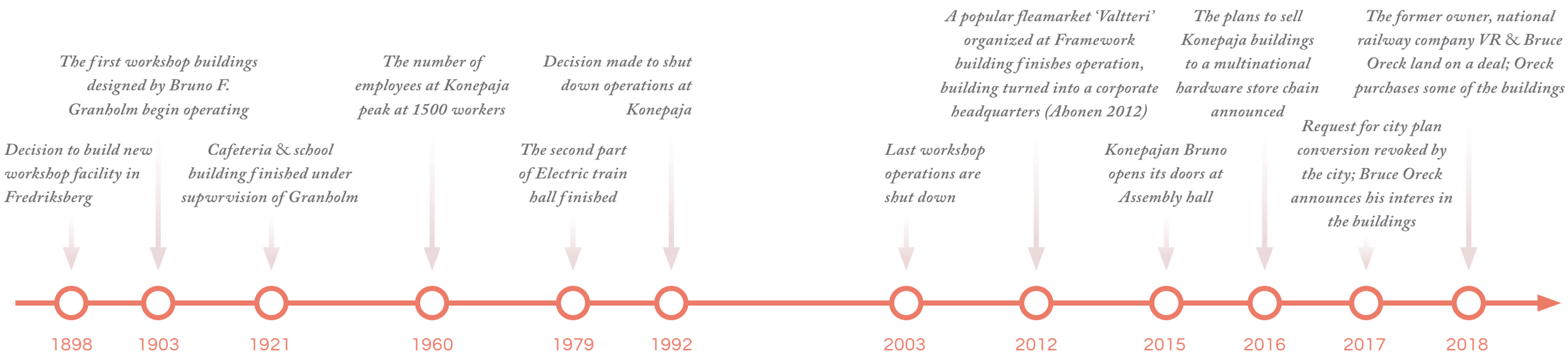


Figure 28: History timeline of Konepaja

for the construction of trains, stations and support facilities steeply increased, the train workshop that had originally taken place by the central railway station in Helsinki had ran out of capacity by the end of the century (Huttunen et al. 2012a, 33). Carriage workshop operations were transferred to the new facility site that was built in Fredriksberg, later known as Pasila, while the construction of locomotives remained at the old workshop. At the time, the new workshop was located practically outside of the city, on the site of a former lake that had been dried and turned into pasture and farmland over the first half of the 19th century (Ibid., 10-11). What made the site ideal for the new carriage workshop was the location by both the main railroad as well as the tracks that led to the former harbour of Sörnäinen. Additionally, the location outside the city allowed room for future expansion, as the site was located in a flat valley that was mainly surrounded by fields and forest at the time. However, in the decades following the building of the workshop, the city of Helsinki grew in both population and size, with the number of citizens steeply increased from less than 80 000 in 1900 to nearly 450 000 by 1960 (City of Helsinki 2012, 27). At the time when Konepaja started its operation, it was one of the largest industrial institutions in the city, as there were over 500 people working in its service (Huttunen et al. 2012a, 18); by the time Finland declared its independence in 1917, the number of employees had grown to 900, and ultimately to 1500 by the end of 1950's (Ibid., 16). Partly as a consequence of the building of the new workshop facility that immediately became a prominent employer at the city scale, the borders of the city were gradually expanded and new apartments built for the workers of the workshop in the proximity of the site. The immediate areas south of the street of Fredriksberginkatu, later known as Aleksis Kiven katu, became new dwelling zones for the working class. Furthermore, the area along the tracks that led to Sörnäinen harbor became a prominent industrial zone in Helsinki, as other industrial institutions were established in the district and in the proximity of the harbor in the early 1900's (Ibid., 20). Konepaja remained operational for a full century, with the decision to shut down the operations made in 1992 and the last operations finished by 2003 (Huttunen et al. 2012a, 5). Thus, throughout the first half of the 20th century, Fredriksbergin konepaja played a part in boosting the nationwide industrial progress and growth by enabling the expansion of network operations, while simultaneously inducing notable impact on the development of the surrounding urban structure in Helsinki. (Huttunen et al. 2012a)

In light of the early history of the site, it becomes apparent that Konepaja has acted as a catalyst of urban transformation in its immediate city environment. Huttunen et al. (2012a, 6) describe Konepaja as a "dynamo" and "generative element", denoting an urban element within a city that accelerates the development speed of the surrounding areas, and that both generates and attracts new activity into its proximity. This generative quality becomes evident in the effect that Konepaja has had in the zoning of the surrounding urban environment: as a prominent employer located outside the city area at the time, the city was led to zone cheap dwelling quarters in the proximity of the workshop for its workers (Ibid., 24). Gradually, Konepaja attracted also more industrial institutions and businesses into the area, which further led to an increased amount of workers to move into the dwelling quarters nearby (Ibid.). Hence, Konepaja contributed to strengthening the place identity of the new residential areas north of Pitkäsilta bridge, today known as neighborhoods of Kallio and Harju, as a working class district in Helsinki (Ibid., 16). While Konepaja has acted as an element that has induced change in the urban environment, it has simultaneously also been an object of change, reciprocally adapting to the progress and transformation sparked in the surrounding urban setting (Ibid., 6). Huttunen et al. (2012a, 16) point out that, over time, generative urban elements tend to "lose their significance or change into elements that hinder progress as the urban environment or society changes". In the case of Konepaja, this change in dynamics happened towards the end of the century, as the city expanded further and parts of the surrounding areas were densely built, which led the workshop complex to begin to appear as a deviant element that seemed

Figure 29: Panorama of Konepaja, 1968
Photo: O. Karasjoki. Source: Huttunen et al. 2012a, 49-50

not to fit in the surrounding urban environment (Figure 29) (Huttunen et al. 2012a, 6). This contrast is expected to become even more striking in the near future, with the immediate areas being developed into new, dense neighborhoods of contemporary high-rise buildings for residential apartments, offices and businesses (City of Helsinki 2017b). With immense transformation currently occurring in the surrounding urban context while new uses are simultaneously being developed for Konepaja site, it is relevant to contemplate the idea of Konepaja potentially re-establishing its identity as a generative element within the neighborhood and even the city at large. Besides the immediate Konepaja block, the place identity of the broader area along Teollisuuskatu is in the process of developing as new neighborhoods are built. Therefore, by developing appropriate future uses for Konepaja that build a distinctive identity for the site, Konepaja can potentially also restore its status as a dynamic, generative element in the city that attracts people and particular activity into its proximity, thus contributing to the forming of the place identity of the broader area as well.

THE BUILT ENVIRONMENT

The original built environment of Konepaja is acknowledged as a culturally, historically and architecturally invaluable site in the city of Helsinki, while also holding nationwide historical significance (Museovirasto 2009; City of Helsinki 2014). In an investigation report conducted on Konepaja area in 2012 by Livady Architects, Huttunen et al. (2012a, 34) describe Konepaja as a "nationally remarkable industrial and cultural environment" with the architecture of Bruno F. Granholm forming "a uniquely extensive and whole milieu entity". Furthermore, the site holds prominent historical value as it depicts the significance that the progress of the transportation and railway industry had for the industrial development of the capital city area (Museovirasto 2009). Architect Bruno F. Granholm designed the first buildings for Fredriksbergin konepaja between years 1899 and 1902, and was later also involved with designing and supervising the construction of newer edifices in the area until 1920's with help from other architects (Huttunen et al. 2012a, 38-39). Today, seven buildings remain in the area that are regarded to hold particular value and are thus protected in the zoning plan, five of which are among the original buildings designed by Granholm: Assembly hall (translated: *Kokoonpanohalli*), Paintshop (*Maalaamo*), Office building (*Konttori*), Workshop (*Paja*), and Power plant building (*Voimalaitos*) (Ibid., 34). The Framework department (*Aluskehysosasto*) and Cafeteria and school building (*Ruokala ja oppikoulu*) were designed by other architects (Ibid., 34), with the former finished in 1919 (Huttunen et al. 2012c, 18) and the latter in 1921 (Huttunen et al. 2012d, 18). Assembly hall and Paintshop form the most central and prominent building complex in the area (Huttunen et al. 2012a, 48), with train tracks formerly running across the two buildings along north-south axis (Ibid., 46). Assembly hall holds altogether 13 905 square meters of space (Huttunen et al. 2012b, 194), with the original workshop functions on two floors. The first floor is further divided into two distinct sections: the main space is a large, open hall space of 7 000 square meters that opens towards the Paintshop building, with the spaces at the back of the building under the second floor reserved for workshops and storage spaces (Ibid., 26). In between the Assembly hall and Paintshop units, there is an open outdoor area that has originally been designed to be covered, but the plan has not been realized to date (Huttunen et al. 2012a, 48). Today, the two buildings are joined by Electric train hall building that was finished in the 1970's, blocking the sides of the original buildings facing Teollisuuskatu (Huttunen et al. 2012b, 55). Even though a number of newer buildings have later been constructed in the area (Figure 30), the original buildings designed and supervised by Bruno F. Granholm form the invaluable building structure that is at the core of Konepaja site (Huttunen et al. 2012a).

The original edifices designed by Bruno F. Granholm depict typical industrial train workshop architecture of the time in various visible features of the buildings. First of all, the architecture is dictated by practical and technical features that are emphasized over aesthetics: the train workshop operation

Original, protected buildings designed by Bruno F. Granholm

Protected buildings built under supervision of Bruno F. Granholm

Buildings built under supervision of Bruno F. Granholm, not protected

Buildings & extensions built later in the 20th century, not protected

Private apartment buildings built in the 21st century

Office & business buildings built in 2018

Planned buildings (offices, apartments, businesses)

1. *Maalaamo (Paintshop)*
2. *Kokoonpanohalli (Assembly hall)*
3. *Paja (Workshop)*
4. *Voimala (Power plant)*
5. *Konttori (Office)*
6. *Ruokala & oppilaskoulu (Cafeteria & school)*
7. *Aluskehysosasto (Frame build division)*
8. *Polttoleikkaamo / Lasipalatsi ('Glass palace')*
9. *Sähköjunahalli (Electric train hall)*

Figure 30: Illustration of Konepaja site & buildings

Figure 31: Facade of Assembly hall, 2018
Photo: Linda Vanni

Figure 32: Facade of Assembly hall, 2018
Photo: Linda Vanni

required consistency in measurements and modular architectural solutions that enabled efficient work practices (Huttunen et al. 2012a, 34). The chosen construction materials also depict practicality: the laid red bricks as the main construction material allowed the use of steam and burning of coal without leaving disruptive marks on the surfaces (Ibid., 36). The manual construction work as well as the selected materials are of high quality, as the workshop was at the time perceived as a farsighted investment by the city, and the demanding use of the building required high level of endurance from the physical structures (Ibid., 34). The high quality in both construction work and materiality as well as in maintenance over the years are the reasons why the buildings are still restorable and usable after nearly 120 years since their construction (Ibid., 34). Even though the architecture of the buildings is primarily dictated by technical requirements of the workshop operation, effort was also put into the aesthetical and architectural details of the buildings (Ibid., 34). The architecture of the main workshop buildings is characterized by the repeated large, arched windows, doors and openings, as well as gabled roofs with pitched light wells running across the hall ceilings every 12 meters, allowing a maximized amount of natural light to penetrate into the building (Huttunen et al. 2012b, 66). The human-scaled edifices, red bricks in materiality, large arched windows and openings, vast outdoor spaces and the high chimney of the Power plant building are among the distinctive architectural features that create the unique atmosphere and historical setting at the Konepaja site that is still present today (Figures 31-32).

Currently, Konepaja is undergoing a fundamental transformation regarding both the physical space as well as the services that take place at the site. While the spaces in between the historical buildings have remained mostly intact, the surrounding environment around the original buildings has been transformed and filled in over the course of the 21st century. The demand for new apartments for the increasing number of citizens moving to Helsinki has led to the former industrial areas around Konepaja being transformed into new mixed areas of residences, offices and businesses (City of Helsinki 2017b; City of Helsinki 2014). Once an open area where the tracks connecting Konepaja to the main railroads in Pasila used to run (Huttunen et al. 2012a), today the area north of Konepaja is a new, dense residential area housing 2500 residents, expected to be finished in the early 2020's (City of Helsinki 2018c). New residential buildings have also been built in the block where Konepaja is located within the ongoing decade, along the side of Aleksis Kiven katu (City of Helsinki 2014). With a constantly increasing number of citizens living in the neighborhood, the number of services and workplaces in the area is also on the rise (City of Helsinki 2018c; City of Helsinki 2018d). Within the Konepaja block, the side of Sturenkatu is currently being filled in with large-scale office buildings, with the first one opened in 2018 (NCC 2018a) and the other two parts of the office complex expected to open in 2020 (NCC 2018b). The recently opened office building currently features also a coworking office space, as well as a restaurant, a bar and other business spaces at the street level (NCC 2018a). Additionally, the Office as well as the School and Cafeteria buildings are planned to be renovated into a hotel that is set to open in 2020 (Malmberg 2019). To date, there is no large-scale convenience store located in the immediate Konepaja area, but one is potentially being planned among the new uses for the neighborhood (Konepaja resident event 16.11.2017). Thus, the built environment around Konepaja area is undergoing an immense transformation, with the number of provided services also expected to significantly rise in the future.

THE LOCATION

In addition to the history and the built environment, also the location of Konepaja in relation to the surrounding areas in the city is found relevant for the case study. At the time when the planning of Fredriksbergin konepaja started in 1898, the location of the new workshop was considered to be practically on the outskirts of the city (Huttunen et al. 2012a, 5). In 120 years, Helsinki has grown and expanded greatly, and today the location of Konepaja can be perceived to be a part of the extended, rapidly evolving city

center area. The site is located three kilometers away from Helsinki city center in the proximity of Eastern Pasila and the new neighborhood of Kalasatama (Figure 33), which are currently being developed to become large and prominent hubs of transportation, residences, offices and businesses (City of Helsinki 2018d; City of Helsinki 2019). The redevelopment of the Sörnäinen harbor was triggered in 2008, when the operations were transferred to the new harbor located in Vuosaari, which enabled the beginning of the construction of Kalasatama neighborhood at the waterfront (City of Helsinki 2007, 10). When finished by 2040, the district of Kalasatama, with a recently opened shopping center Redi at its core, will provide a home for 25 000 citizens, and jobs for an expected number of 10 000 people (City of Helsinki 2019). At the same time, the number of residents in Pasila is expected to nearly triple to 30 000 and the number of workplaces to double to 50 000 (City of Helsinki 2018d), with the new mall of Tripla due to open in late 2019 (YIT n.d.). Teollisuuskatu, which is a 3 kilometers long, heavily trafficked street that connects Pasila to Kalasatama, is also going to be transformed into an urban main street and a prominent concentration of businesses and various functions (City of Helsinki 2017b, 11). The link between the two hubs is further strengthened with the decision made in 2018 by the city to realize a new tram line between Pasila and Kalasatama, with the connection expected to be operational by year 2024 (City of Helsinki 2018e). With these changes, the center of Helsinki expands northwise (City of Helsinki 2017b, 11) and consequently the dynamics in the area will also shift, which will critically affect Konepaja as well. Situated between the two evolving hubs and at the intersection of the busy streets of Teollisuuskatu and Sturenkatu, the location of Konepaja will become central in relation to the new urban hubs. Furthermore, accessibility to Konepaja will improve from various directions, and the increased number of businesses and services in the area is likely to attract more visitors, both local and foreign. Therefore, the location of Konepaja is becoming more central and accessible in relation to the surrounding areas, which is likely to significantly enhance the attractivity of Konepaja as a site.

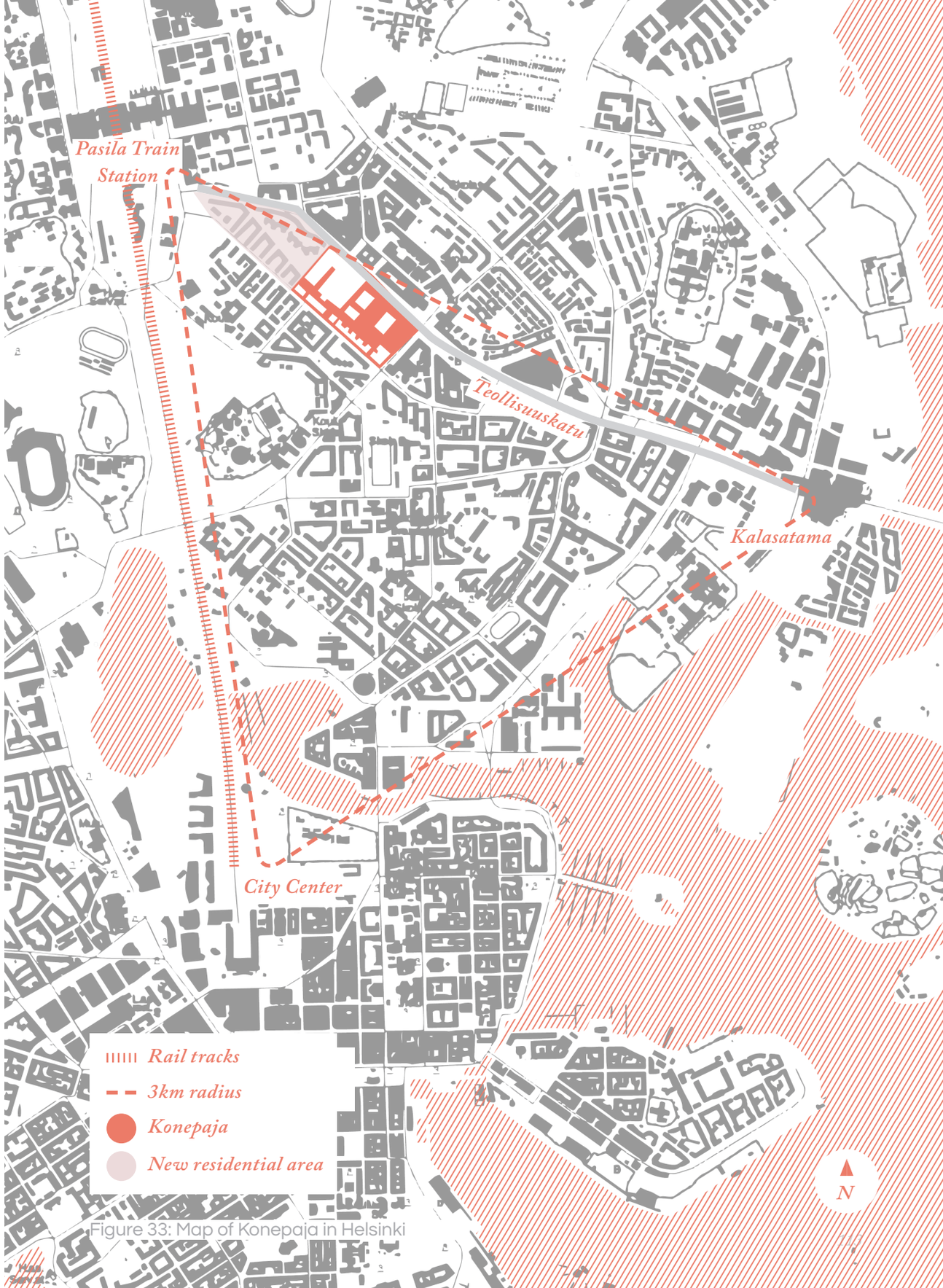


Figure 33: Map of Konepaja in Helsinki

6.3 CONCLUSIONS OF THE CONTEXTUAL STUDY

The aim of the contextual study was to establish a holistic understanding of the history, built environment and location of Konepaja as an urban area in relation to the surrounding city. The summary and conclusions of the contextual study form the foundation for the analysis part of the case study, in which the potential direction and relevant actors in the future development of Konepaja and its identity are discussed. Based on the study, it can be concluded that the history of Konepaja as a generative element, a dynamo, within the city of Helsinki provides a strong and fruitful starting point for the identity development of the area. When Konepaja started operating as a train carriage workshop in the early 20th century, it was a center of innovation at the time: by producing train carriages, the site contributed to building the nationwide railroad network, and thus boosting the industrial development and also the social and economic progress in the growing capital city. For decades, Konepaja served as a large employer in Helsinki for the working class, and contributed to shaping the urban environment as well as the identity of the surrounding city area. Even though the society and the city have changed dramatically in the 120 years of time since the opening of Konepaja, there are also similarities to be found between the situations then and now. Throughout the previous century, the area between the harbor of Sörnäinen and Pasila was strongly associated with industrial functions, and thus provided little activities or services for the citizens of Helsinki. Now that the whole area is transforming into a busy extension of the expanded city center that mixes businesses, residences and offices, the identity of the broader city district is undergoing a change. Located at the intersection of Teollisuuskatu, the axis connecting the two evolving hubs of Pasila and Kalasatama, and the busy passageway of Sturenkatu which leads to the city center, Konepaja may become perceived as the heart of the Eastern city center area, with increased accessibility from various directions. In addition to the improved connections from other parts of the city, Konepaja is also easily accessible from the airport by public transit, as the newly opened train line and the proximity of Pasila train station enable reaching the site within 45 minutes. This opens the possibility for international, short term layover tourists to visit the site as well. While in the past Konepaja has been a secluded industrial environment with little interaction with the surrounding urban area (Huttunen et al. 2012a, 46), in the future this situation can dramatically change. In the years to come, Konepaja has potential to reclaim its status as a generative element in Helsinki: by building a strong place identity that attracts people, activities and businesses into the area, Konepaja can potentially affect the future development of the extended environment, and perhaps even steer and strengthen the identity of the entire city of Helsinki as well.

The striking contrast between Konepaja and the rest of the surrounding urban area, which appears in multiple ways, can be perceived as an asset that may help build the distinctive, unique place identity for the site. While the environmental setting and architecture between Pasila and the new neighborhood of Kalasatama may differ visually and in scale, the functions that these two evolving centers offer are very similar to each other: the services and environments provided at the two massive indoor shopping malls, Mall of Tripla and Redi, seem not to substantially differ from the multiple other existing shopping centers within the relatively small capital city area. While the new centers provide various essential services for the growing neighborhoods, the recent critique received by shopping center Redi since its opening in fall 2018 (Bäckgren 2019; Mannila 2018) leads to questioning whether the current commercially focused building practices create environments that are truly desirable by citizens themselves. In fact, there appears to be a counter movement currently happening in the area that creates a strong contrast to the ongoing, massive development projects: a movement that nourishes small-scale, bottom-up initiatives as a prominent way to create interesting urban environments and distinctive identities for these areas. Besides Konepaja, this movement is visible in various places in the nearby area: grassroot activity has started to

Figure 35: Suvilahti, former powerplant
Photo: Martin Sommerschield

Figure 34: Eastern Pasila
Photo: Helsinki Urban Art n.d.

Figure 36: Street food event at Teurastamo
Photo: Letu Ahanen

form at the locomotive stalls next to Pasila train station (Laitinen & Ylioja 2018), and the older neighborhood of Eastern Pasila, known for its concrete architecture, is being visually transformed by colourful, large-scale murals and urban art (Figure 34) (Helsinki Urban Art n.d.). Citizen-led activities are also occurring around Kalasatama area: Suvilahti, a former power plant (Figure 35), has become a venue for various cultural events and a testbed for communal experiments (Aibéo & Oddo 2018; Hernberg et al. 2012), while urban events and food-related festivals are also frequently organized at Teurastamo, a former butchery (Figure 36) (Salminen 2018). With location in the proximity of these four sites, Konepaja has potential to become an extension of the growing network of grassroot urban interventions that are transforming the extended area and its identity from the ground up. In contrast to the new, massive scale commercial centers that are being built in Pasila and Kalasatama, Konepaja has potential to provide visitors and tenants with a distinctive environment and visitor experience: one that is human-scale, communal, tactile, vibrant and unique, and where the historical, architectural layers are visible. The unique environment of Konepaja with an unfinished, undesigned, relaxed appeal provides a fruitful milieu for creative experimentation and community-led activities, which can further lead to strengthening the existing, distinctive place identity that has already begun to form in the past few years.

While the central location and architecturally interesting environment are important, the activities that take place at the site play perhaps the most essential role in creating an attractive urban space. Ultimately, it is the communities who proactively initiate action within these neglected spaces and thus create the new life for an underused urban environment. Helander (3.12.2018) views that, in the case of Konepaja, it is crucial that the activities that take place at the site stem from the community itself, because such initiatives are then based on the real needs of the users of the spaces. Furthermore, she perceives that top-down initiated guidance "often leads to mediocrity" (Ibid.), which is why the operational environment should build on the

initiatives of the community. Aligned with this view, Lehtovuori and Ruoppila (2012, 49) perceive that freedom from top-down directed constraints and intervention in the activities is critical in developing environments that nourish experimental bottom-up initiatives and temporary uses, which can ultimately lead to innovation and building flourishing urban environments. By temporary uses the authors refer to short-term activation of vacant sites or buildings, that may take various forms, including urban activism, events, and other community-led initiatives. Over time, temporary uses may become recurring or even permanent by gaining popularity and becoming "consequently perceived as essential element of the new character of the place" (Ibid., 30). Thus, temporary uses are an important tool for placemaking, i.e. for creating vibrant, active and attractive urban spaces that may become also economically profitable in the long run. According to the authors, there are a number of social, spatial and economic benefits affiliated with temporary uses: for example, they can increase attractivity of existing yet neglected sites, and thus potentially lead to the rise in property values in even wider area (Ibid., 30, 35). Furthermore, interim uses enable the community to explore the potential of spaces through collaboration and bottom-up experimentation, which can lead to innovations and "people-created spaces" (Ibid., 35). Thus, by providing affordable spaces and a permissive environment that enables temporary uses and experimentation free from constraints, the community can become a catalyst that autonomously transforms a rundown industrial area into an attractive and even lucrative urban environment. In the case of Konepaja, this leads to contemplating the possibilities to harness the community of Konepaja as a driving, transformative force in shaping the environment and activities at the site (Figures 37-39). Based on the study, it becomes apparent that enabling Konepaja to be developed in a bottom-up directed process by nourishing temporary uses and community-initiated activities, a distinctive and sustainable place identity may be built that stems from the community. Ultimately, this may further lead to Konepaja reclaiming its status as a generative element within the city of Helsinki.

Figure 37: Konepajan Bruno
Photo: Verna Kovanen

Figure 38: Konepajan Bruno
Photo: Verna Kovanen

Figure 39: Temporary uses at Konepaja
Photo: Niklas Nabb

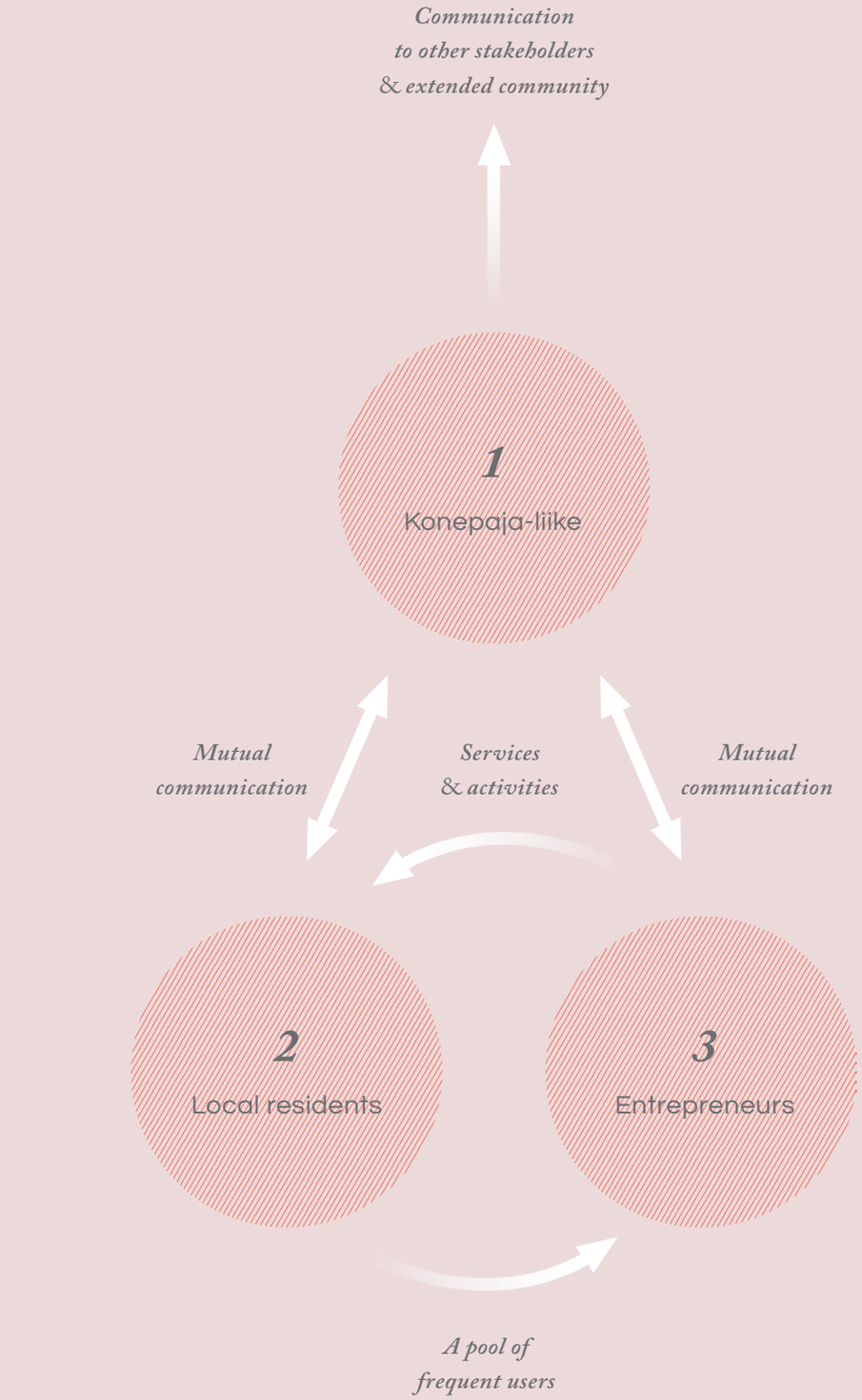


Figure 40: Key actor groups of Konepaja

7

Analysis: Community as a resource in achieving future vision of Konepaja

7.1 IDENTIFYING THE COMMUNITY OF KONEPAJA

ABOUT THE KEY ACTORS

Derived from the fieldwork, the key actor groups who form the Konepaja community are identified. A conscious decision was made to focus on the main users and actors of the Assembly hall, which is generally considered to be the most central and important building for future uses at Konepaja. This decision led to leaving out other stakeholders who were regarded any less relevant for the development process of Assembly hall, including the developer companies of the newer constructions and businesses occupying the other buildings of the area. The focus is thus on those current, most essential actors who have been involved in forming the existing identity of the area in the past years, and are hence identified as the key contributors in the potential future development of Konepaja. There are two main reasons for this decision: firstly, because the precise plans of the new owner of the main buildings for future development, uses and actors involved with those plans are currently unknown. The second reason is that the members of the current community have been identified as the most relevant, motivated contributors to the development of the future identity, environment and activities of Konepaja area. Furthermore, the commercial strategy, operational model and the role of the operator of the buildings are not discussed, as their roles are perceived to be out of the scope of the thesis. Therefore, it is established that the community of Konepaja is made of those key actors who have either held the most essential role in initiating the revitalization of the area at grassroot level, or are perceived as the key actors in shaping the future of Konepaja through a bottom-up directed development process. Based on the fieldwork study, the community with the power to shape the future of Konepaja is formed by three actor groups: Konepaja-liike, local residents of the immediate neighborhoods, and the entrepreneurs currently working at the premises of the Assembly hall building (Figure 40).

Figure 41: Konepajan Bruno
Photo: Niklas Nabb

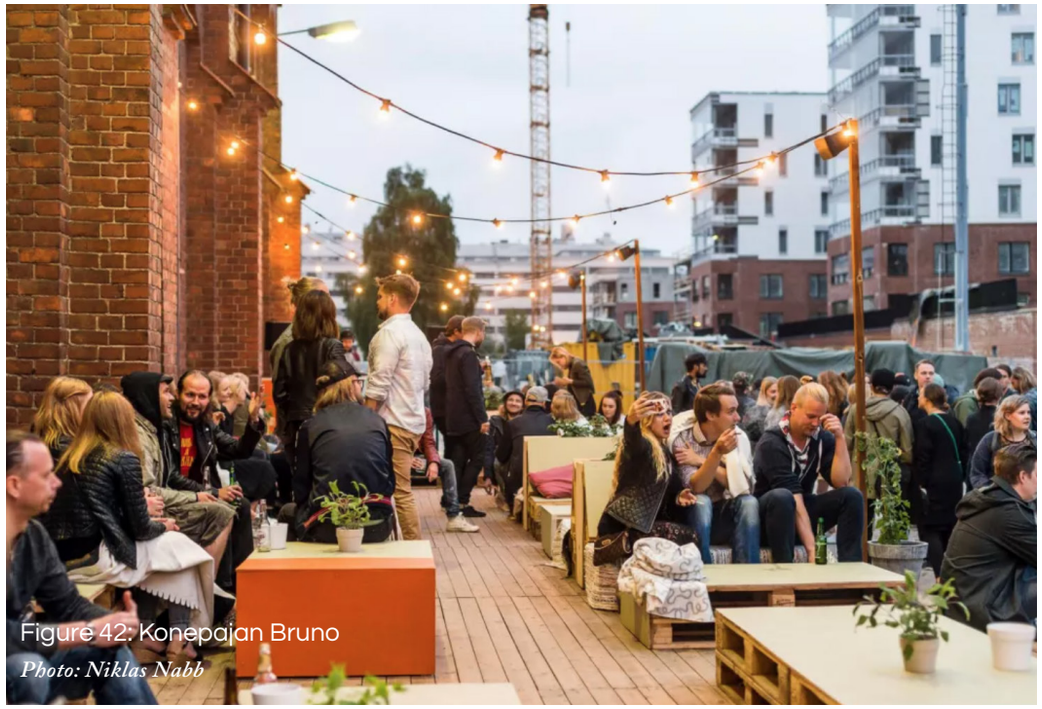


Figure 42: Konepajan Bruno
Photo: Niklas Nabb

KEY ACTOR GROUP 1: KONEPAJA-LIIKE

Konepaja-liike, literally translating to Konepaja movement, is a group of local residents and urban activists that has had a critical role in redirecting the development plans of Konepaja from top-down initiated development towards building on the grassroot activity that is already taking place at the site. This network of local professionals from different fields has acted as an advocate of the extended community: the members have appeared in media throughout the prolonged negotiation processes regarding the ownership of the property, strongly defending Konepaja and the interests of its existing community (e.g. Blomberg & Möller 2017; Humalamäki 2017). While the Facebook group of the network has currently over 1500 members, Konepaja-liike is particularly known for its two leading figures, urban activists Jaakko Blomberg and Antti Möller. The lead members have been, for example, involved with persuading Oreck to invest in Konepaja (Ibid.) and mobilizing people to advocate for the bottom-up development of the area through media (Blomberg & Möller 2017). On their website (Konepaja-liike n.d.), the group has identified Konepaja-liike as an open platform that enables harnessing the collective power of citizens in creating an impact on their living environment. The group has described their vision for the area by stating that "the area of Konepaja could be a prominent hub of the creative field, developing ventures and urban culture, which would attract businesses, residents from near and afar, as well as tourists" (Ibid.). The aims of the group thus include improving the quality of living and working in the area, and developing Konepaja into a vibrant center that attracts also external visitors (Ibid.). Essential to their mission is the strong perception that the future of Konepaja should be planned, developed and implemented in tight collaboration with the residents and other actors of the area, and that the concept for the site should build on the grassroot activity and assets that already exist at the site (Figures 41-42) (Ibid.; Humalamäki 2017). While the network mainly appears to consist of local residents and other actors of the neighborhood, it is evident that Konepaja-liike with its key members acts as a mediator between different stakeholders, an advocate of interests of the wider community, as well as an informer of the process and an initiator of public conversation on social media. Based on the observations of the fieldwork, it is also apparent that the core members of the network are widely recognized by people and trusted among the community. The members of the group utilize social media as a tool for informing the community and other interested individuals of the ongoing development process, as well as for initiating discussion and mobilizing action. The group could be thus concluded as an activist, mobilizing force within the community of Konepaja that cuts across various different stakeholder groups, raises awareness and encourages people to make a difference at the grassroot level. Therefore, Konepaja-liike is a central actor group in the development of the area - not only as potential users of the spaces and activities of Konepaja, but also as active advocates who mobilize, inform and unite the rest of the community.

KEY ACTOR GROUP 2: LOCAL RESIDENTS

Another stakeholder group that is central in the development of Konepaja is formed by the local residents of the immediate area. With the number of new inhabitants in the area peaking at 2500 (City of Helsinki 2018c), the residents constitute a prominent pool of regular users and customers of the spaces and services provided at Konepaja. Based on the observations made at the public events during fieldwork, the resident profiles are versatile, ranging from families with children, to young professionals and to elderly seniors. While the development plans raised minor concerns regarding increased noise levels among individual elder inhabitants (Konepaja resident event 16.11.2017), it is evident that a vast majority of the residents support the proposed visions for Konepaja to become a vibrant neighborhood of urban culture. This prevailing positive stance was apparent at the public discussion events, as well as in a report summarizing the content of the notices that were filed by citizens against the plans to convert the old buildings into commercial spaces in 2016:

> The majority of the complaints object the diminishing of the vivid urban culture that has been sparked in the area. The current, diverse and interesting range of activities are viewed as significant for the local residents, as well as for enhancing tourism and the identity of Helsinki. Also the strategy programme of Helsinki emphasizes the significance of culture and events as a part of Helsinki that is attractive and fun. An urban hub for small-scale entrepreneurs and urban culture is perceived as a direction for development that is socially sustainable, and has broader significance beyond economic profit. (City of Helsinki 2016c, 2)

Thus, the residents generally view that developing the formerly neglected buildings into an attractive and vibrant milieu would also improve the quality of their living environment, with the existing cultural entrepreneurs of the area perceived as a vital part of the distinctive appeal of the neighborhood. While it is clear that the shared vision of various stakeholders emphasizes the desire to develop the site in a way that also attracts visitors from outside the immediate neighborhoods, it is the local residents who, through their everyday presence and usage of the site, are the most critical actors in defining the activities that take place at Konepaja. As the neighborhood and services are still being currently built, it can be derived that most of the local residents are new to the area, and the identity of the neighborhood is currently forming. If provided an opportunity to participate in the development process and in defining the activities, environment and services at Konepaja, the local residents can play an important part in establishing the distinctive identity of the area as frequent users and advocates of the area.

Derived from the field work, two additional conclusions can be made of the local residents of Konepaja and their interests regarding the site development. The first one is that, while the sparked urban culture and vitality of the environment are viewed as important assets, the local residents approach the development of the area from a more pragmatic angle than the other groups of the community. Besides cultural activity, the local residents also have requested services for their daily needs in the area, including a convenience store, a day care center, and sports facilities (City of Helsinki 2016c, 3; Konepaja resident event 16.11.2017). As Konepaja serves as the landscape of the everyday life of the local residents, their approach to the development is practical, with values of safety, convenience and comfort emphasized in the future development of the area. Through the accumulated knowledge and pragmatic approach, the residents also serve as invaluable sources of tacit knowledge that can critically inform the development process. The second notable conclusion of the local residents is that, as they consider Konepaja area as their home, they are emotionally invested and thus care for the development of the area. This can be viewed as an important asset: by caring for the development, the residents are also potentially the most enthusiastic participants to take part in voluntary efforts, public discussions and co-design sessions. Moreover, the level of motivation of the residents to be involved in the area development is likely to be high, as they directly benefit from the increase of quality in their living environment. This motivation was evident especially at the public discussion event organized by Bruce Oreck in November 2017 (Konepaja resident night 16.11.2017), where over 350 local residents and other participants attended (Figure 43) (Varmavuori 2017). Additionally, participating in the development of the site would provide the residents with an opportunity to get to know their neighbors, and to establish a sense of community and ownership over the area. By being proud of their living environment, the residents can become the most important ambassadors of Konepaja by acting as advocates, and shaping the environment and its activities through their everyday actions. Therefore, enabling residents to participate in the development process can ultimately lead to attracting more visitors and businesses into the area, and thus also to strengthening the distinctive place identity of Konepaja.

Figure 43: Resident event at Konepajan Bruno on November 16, 2017
Photo: Linda Vanni

Figure 44: Konepajan Bruno
Photo: Linda Vanni

KEY ACTOR GROUP 3: ENTREPRENEURS OF KONEPAJA

The third identified key group of the Konepaja community is comprised of the entrepreneurs, service providers and other actors who work at the premises of Assembly hall. Since it is not clear at the point of writing this thesis whether the entrepreneurs currently occupying the facilities will continue their operation at the premises under the new ownership, it is important to note that the observations are based on the community of actors working at the spaces in early 2018. At the time of the fieldwork period, the entrepreneurs operating at the Assembly hall were ranging from designers and craftsmen to photographers and start-up companies, with approximately a dozen small businesses in total working at the premises. While the vast spaces of Assembly hall remained to the most part empty, the actors had built several workshops at the premises, with the cultural venue of Konepajan Bruno occupying 1152 square meters of the southernmost corner of the building (Figure 44) (Konepajan Bruno n.d. b). The observations obtained during the fieldwork suggest that the relationship of the entrepreneurs towards the area is different from that of the local residents, as a majority of the business owners did not live in the neighborhood. However, it was evident that the entrepreneurs saw the potential in Konepaja to be developed into a vibrant heart of the neighborhood and felt strongly attached to the site, with an urge to contribute to the future development of the buildings and the area. The potential increase in attractivity and visitor flows at Konepaja that might follow the multiplication of actors, businesses and services in the area was perceived as a positive development direction that all actors would benefit from. Thus, as providers of distinctive services and activities that attract visitors into the area, the entrepreneurs act as important catalysts for broader transformation at Konepaja.

Over the course of the past few years, a tight community of creative actors has formed at the premises, who share spaces, tools and knowledge with each other and have strongly contributed to the revitalization of the formerly neglected area at grassroot level. Since the opening of Konepajan Bruno in 2015 (Parkkinen 2017), the venue has acted as a distinctive heart of the area that has attracted visitors from both surrounding neighborhoods as well as other parts of the city. In fact, it seems that it is precisely Konepajan Bruno that has acted as a catalyst for the transformation of the identity of Konepaja: for example, the large number of people who signed the petition defending the venue from being shut down in 2016 (Konepajan Bruno n.d. a; Nissinen 2016) implies that the communal urban culture that has been sparked in the area through the activities open for all citizens are viewed as invaluable. By providing an easily approachable cultural venue and recreational place for the community to gather in a historic, unique industrial milieu, Konepajan Bruno has thus become a distinctive attraction that has been recognized as irreplaceable by the citizens of Helsinki. In the further development of Konepaja, it is clear that a balance is needed between businesses such as Konepajan Bruno that attract public throughout the day and year, and other actors, such as artists and designers, who use the premises to work collectively. By providing various kinds of services and activities, larger crowds can be attained; however, it is the community of creative entrepreneurs and actors, such as artists and designers, who are perceived as the creative community and who shape the environment and its atmosphere through experimentation and creative activities. As such, they also play a critical role in forming the identity, environment and activities of Konepaja through communal spirit, cross-pollination of ideas, innovation and experimentation.

7.2 THE ROLE OF COMMUNITY IN ACHIEVING THE FUTURE VISION

IDENTIFYING THE INITIAL VISION

Even though the precise development plans of the new owner regarding the development of Konepaja have not been determined or publicly announced yet, conclusions can be derived of the initial, guiding future vision for the area based on the aligned statements given by different stakeholders. This

Figure 45: Telliskivi, Tallinn
Photo: Linda Vanni

Figure 46: Telliskivi, Tallinn
Photo: Linda Vanni

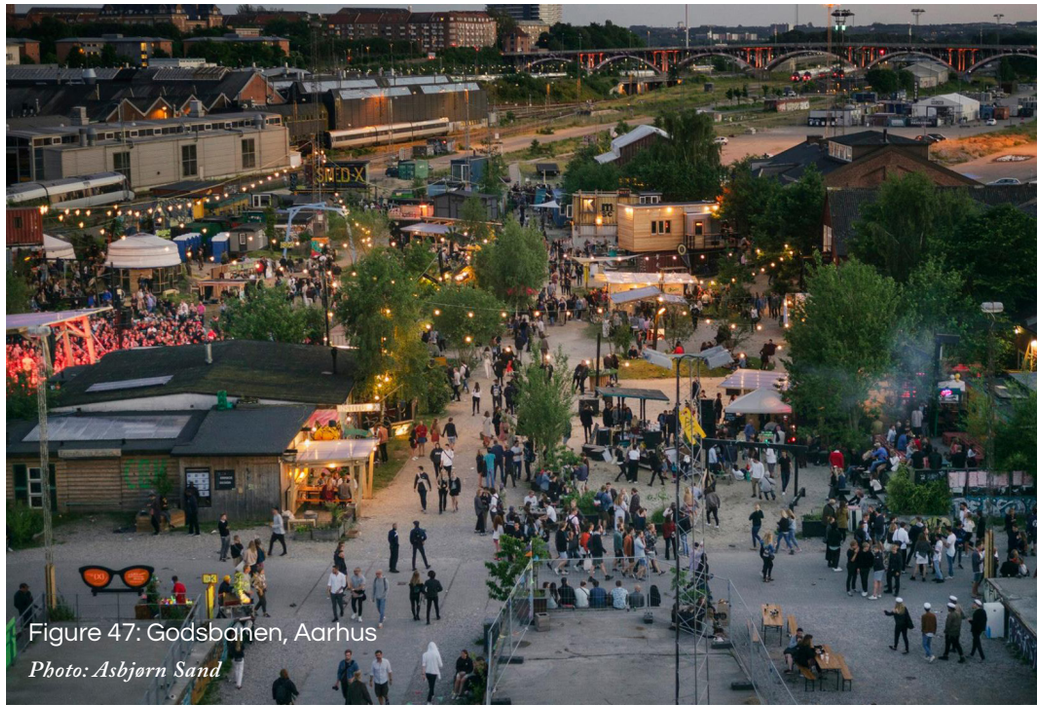


Figure 47: Godsbanen, Aarhus
Photo: Asbjørn Sand

shared vision builds on the place identity that has already begun to form at Konepaja over the recent years, sparked by the creative entrepreneurs and communal urban culture that have taken place at the site. The existing place identity is detectable in, for example, the comment section of the petition that defended the operation of Konepajan Bruno from being finished in 2016 (Konepajan Bruno n.d. a). In the comments written by citizens, Konepaja is commonly referred to as a "living room of citizens" and an "urban oasis of culture", that is perceived to support a sense of community, enliven the urban area, and to provide a place for all citizens to spend time at (Ibid.). It is clear that this established identity has particularly stemmed from the small creative actors, especially Konepajan Bruno, who have provided easily approachable, non-commercial spaces for also experimental grassroot activity and spontaneous encounters to occur. In the described visions of both the community (Humalamäki 2017; Konepaja-liike n.d.) and the new owner of the main buildings (Suomi 2018, Nelskylä 2017), future Konepaja is envisioned as a vibrant place for the neighborhood to gather, with a diverse range of creative, small-scale entrepreneurs and communal activities. Bruce Oreck has stated that Konepaja should be "the home of creativity and joy" and "a place that is always in transition", where "people could experiment with their ideas with low threshold" and thus contribute to shaping the dynamic state of the site (Bruce Oreck referenced by Nelskylä 2017). Furthermore, Oreck has acknowledged the essential role of the community in the development process (Ibid.), and has welcomed the input and contribution from the community in forms of open discussion, validation and idea proposals at the public discussion events (Konepaja resident event 16.11.2017). In a recently published interview, Oreck elaborated the key role of the community actors and their initiatives with a following statement: "If you go around the world and you look at the places in cities that are the most exciting and the most vibrant, it's the things that are being invented on the ground … it's when creative people, entrepreneurs, inventors, artists make it together and they just do stuff. And that's what we're trying to do here, to create a framework, a home, where invention and creation can happen" (Bruce Oreck referenced in Suomi 2018). Thus, the initial vision for future Konepaja that is shared between several stakeholder groups includes perceiving the site as a platform for grassroot activity and bottom-up initiatives, that can have the power to strengthen and amplify the existing place identity of Konepaja as a hub or urban culture and creative actors. In achieving this vision, the role of the community actors is emphasized as initiators of experimentation and executors of creative ideas, that create the distinctive, community-driven identity for the area.

CREATING COMMUNITY-DRIVEN PLACES

There are various international examples of places where creative communities have played a key role in building sustainable and unique place identities at formerly neglected industrial spaces, which have over time developed into well known attractions for both local and foreign visitors through bottom-up directed processes. Two examples of such places are Telliskivi Creative City in Tallinn, Estonia, and Godsbanen in Aarhus, Denmark. At both of these sites, the local communities have succeeded in turning rundown industrial areas into community-led, vibrant hubs of creative actors and unique urban culture, attracting a significant amount of visitors each year and thus inducing a positive impact also on the broader city brand and environment. Telliskivi Creative City (Figures 45-46) is a hub of creative entrepreneurs that facilitated its first tenants in 2009 (Korhonen 2016), and has within a decade become a community of 250 creative companies and 1500 people working at the site (Telliskivi n.d.). Today, the former industrial milieu is a prominent attraction in the proximity of Tallinn city center that attracts over 700 000 visitors annually to visit the small boutiques, restaurants and cultural events hosted at the site (Korhonen 2016). Godsbanen, in turn, is a former freight station (Figure 47) that has been transformed into a "cultural powerplant" and a creative city district in Aarhus that hosts over 400 events a year and provides open workshops and working spaces for creative actors (Godsbanen n.d.). The transformation process has been driven by a collective of local

Figure 48: Amplifying the existing place identity at Konepaja

creative actors and a non-profit platform for citizen-led initiatives called Institute for X (Institut for X n.d. b). Founded in 2009, the collective currently comprises over 250 members, 50 companies and 25 associations (Institut for X n.d. a), and has acted as a catalyst for the transformation of the former freight area, with the hub today recognized as "the creative and cultural city district" in Aarhus (Institut for X n.d. b, 27) that attracts annually up to 80 000 visitors (Ibid., 3). The collective uses the generated profit to upgrade the facilities, with the goal to "create a liveable city" through "cultural, artistic and craftsmanlike creativity, a simple … business model and citizen involvement" (Ibid., 2). By enabling the actors of the premises to shape the environment, from contributing to the building of the public spaces to encouraging the actors to construct their own office spaces at the area (Institut for X n.d. a), Institut for X has evidently acted as a transformative force at Godsbanen. Through temporary uses and collaboration between a number of creative actors, Godsbanen has thus been transformed from a neglected freight area into a vibrant urban site, a center of creative actors and events, as well as a prominent visitor attraction. These two examples, Godsbanen and Telliskivi, both share similarities with Konepaja: located in the proximity of the city center, in formerly rundown industrial areas, the sites have provided affordable and intriguing urban milieus for creative actors and experimental temporary uses. By enabling and encouraging similar, community-driven activities and initiatives to form at Konepaja, the community itself can become a catalyst for transforming the urban environment, activities and identity of the area, that may even induce broader implications at the city scale.

The aforementioned examples suggest that the community, especially the actors and entrepreneurs of the site, play a key role in building a distinctive and attractive place identity. As noted by Lehtovuori and Ruoppila (2012), former industrial milieus provide a fruitful ground for such communities and temporary uses to form, as these environments often provide affordable working spaces without top-down directed restrictions or limitations. An additional reason for the popularity of industrial spaces among creative professionals may be that "the rough aesthetics of industrial left-over spaces, the appreciation of the un-designed and indeterminate, attracts artists, designers and other creative professionals" (Lehtovuori & Ruoppila 2012, 33). Helander (3.12.2018) also views that unfinished industrial spaces, such as Konepaja, are apt to attract creative activity, as these spaces provide the opportunity for the community to experiment, collectively solve problems and generate creative spatial solutions together with other actors. The collective problem-solving and collaboration generated in these spaces can further lead to networking and creating a strong sense of community (Ibid.). Furthermore, experimentation through community-led initiatives, temporary uses and collaboration between actors may lead to innovative activities and the shaping of a unique environment that reflect the values and attributes of the community that occupies the site, which can attract visitors into formerly neglected areas. Over time, this can lead to the establishing of "people-created places" (Lehtovuori & Ruoppila 2012, 35) and unique urban environments in a bottom-up directed, participatory process. By succeeding in attracting first the residents of the nearby neighborhoods and then citizens from other parts of the city, a growing flow of visitors can be established. The increased amount of visitors and distinguishable place identity may attract more businesses, actors and service providers into the area, further strengthening the place identity and ultimately even attracting international visitors, as the area is recognized to provide a unique visitor experience that is distinctive from other places (Figure 48). As referenced in a news article published in 2017 (Humalamäki 2017), Ilkka Hietala, one of the founders of Konepajan Bruno, views that "Konepaja would have great potential to become an attractive, trendy urban environment such as Telliskivi in Tallinn" that would attract both national and international tourists "to enjoy culture, compelling events and good food". In order to achieve this vision, it seems essential that the area is developed from the ground up, in a way that amplifies the identity already detectable at Konepaja as a distinctive place of communal urban culture. It

Figure 49: The relationship between community, activities & environment

appears that the operative model plays a pivotal role in this development: by creating operative conditions that nourish collaboration between actors and enable the community to thrive, distinctive and innovative activities and services that stem from the community can occur, which may further shape the environment of the area to depict the community and their values (Figure 49).

7.3 APPLICATION OF THEORY: KONEPAJA AS A CASE OF CO-DESIGN

As it was elaborated in the previous sub-chapter, enabling the existing yet growing community of Konepaja to act as a driving force in a bottom-up directed development process of the area is established as essential in building a distinctive, sustainable and attractive place identity, and thus in achieving the identified future vision for the area. Based on the study conducted for the thesis, it becomes clear that, in this particular case, the development process should not aim for a strictly defined ambition or end result. While it is important to establish a future vision for the area that is shared with the community and that guides the different actors over the continuous and sustained development process, this vision should have room to change and evolve over time together with the community and its actions. The reason for this is that establishing Konepaja as a place that is created by the community presumes that the place is always in transition, and thus becomes a dynamic and organic entity that transforms, grows and renews over time. In this sense, there is no end result for the development process of Konepaja; instead, the process itself can be viewed as a guiding framework, a platform even, that enables the community to become a catalyst for the transformation of the area, with the development stemming from the actions of the community in a sustained, long-term process. Hence, it can be derived that the development of Konepaja can be approached as a case of participatory design, where the co-design process is open-ended and strongly focused on the front-end, without a strictly defined goal or desired end result. This means that the participatory process should focus on the community rather than altering the area itself, because first developing the area and then expecting the community to adapt does not result in community-driven places, and may even lead to resistance, frustration and rejection among the community members. Instead, by turning the focus of the development process to the community instead of the built environment and its services, the development process of Konepaja can be approached as a case of co-design, where the ultimate aim is to create the conditions for the key stakeholders to develop a sense of community and shared ownership of the area. Creating a deep sense of community and ownership among the most relevant actors may lead to the community becoming a transformative force who sustains, develops and shapes Konepaja over time in a bottom-up directed process. Ultimately, Konepaja can reclaim its status as a generative element in the city of Helsinki by means of co-design: by creating the circumstances for the community to grow and shape Konepaja to depict their own, shared values, a stronger and more unique place identity can be created. This can further lead to attracting both visitors as well as new services and businesses into the vibrant and community-driven urban area and its proximity, thus inducing an impact even in city scale.

IDENTIFIED ISSUES REGARDING THE CURRENT DEVELOPMENT DIRECTION

Based on personal experiences and observations gained during the fieldwork period, two main issues were identified regarding the existing direction of the ongoing development process of Konepaja. The first identified challenge is that, despite the publicly expressed intentions to develop the site in a participatory way, it appears that, in practice, the efforts have fallen short in terms of quantity, quality and frequency to qualify for a genuinely participatory process. The reasons leading to this conclusion include that the opportunities provided for the public to participate have been mainly limited to hearing about the vision and vague plans of the new owner at the resident events, and to validating the ideas by taking part in discussions, which are forms of passive participation. While also some opportunities for active participation have been provided to

the community, such as generating input in form of concrete ideas and requests for activities and services to take place at the site, these participatory means appear to have happened in isolation, with no guarantee that the input of the citizens, in fact, steer the development process in the end. Since the previous resident event organized on November 21, 2018, no public announcements have been made regarding the progress of the area development. Developing the area in a participatory way would require continuous communication and involvement, even when there is no active progress occurring in the process. The potential implications of the current direction of communication are demonstrated in the contrast between the public reactions regarding the dispute over the ownership of Konepaja in 2016 and 2018: the discreet, non-participatory negotiations between the former owner and the private hardware store chain in 2016 led to the stirring of frustration and mistrust among the public, whereas the seemingly open and participatory approach of the new owner succeeded in gaining the public support in 2017 and 2018. As it is evident that the sense of openness and transparency conveyed in the beginning of the process led to engaging the community, it is crucial not to limit this participatory approach only to the beginning phase, neither to passive forms of participation only. In order to empower and harness the community as a resource in the further development process, continued involvement and engagement of the most relevant actors, and frequent communication towards the rest of the community is essential. Approaching the development process by means of co-design and genuine participation presumes that the key stakeholders are actively and frequently engaged and enabled to participate through various means and channels, and that they are aware that their input meaningfully affects and steers the development process. Furthermore, informing and engaging the broader community and public in two-way discussion regarding the progress is also essential in a co-design process, as uncertainty can lead to mistrust, and ultimately to passivation and resistance among the community.

The second issue that was identified during the fieldwork process is the excessively long timeframe of the development. While it is acknowledged that the restoration of the neglected buildings to comply with the contemporary building code takes time and requires investment, it remains unclear whether the existing development plans include efforts to activate the area before the restoration process is finished. In a news article published in 2018 (Suomi 2018), it is estimated that the development process would take at least five years of time before the buildings are ready to use. The restoration does not only apply to the buildings, but also the public space in between the buildings owned by different stakeholders. Although it is acknowledged that restoring the entire area is a time-consuming process, the estimated timeframe of five years, possibly without any temporary uses, is a long time for the community to wait. Within five years, there is a high probability that the community of Konepaja has become more passive and scattered: the active residents of the local neighborhoods may have moved away, the entrepreneurs are likely to have moved their businesses elsewhere, and the rest of the community may simply have lost interest in the area, in absence of activities or visible progress. Moreover, a bottom-up directed process is unlikely to be sparked in a place that is considered to be finished. The core idea entailed in the concept of a bottom-up directed process is that the community significantly contributes to shaping the unfinished environment through actions stemming from themselves, from the very beginning and throughout the development process. Thus, the current direction of development holds a high risk of missing the opportunity to develop the area in a way that fosters the motivation and drive of the current community, attributes that have been sparked over time and are difficult to restore once they have been lost. This is why it is viewed as crucial to engage the community throughout the development process in creating concrete and temporary interventions in the area, such as events, activities and physical structures. Such concrete interventions may lead to the activation of the unused land, and even steering the official development of the area already while the restoration is in process. By enabling the currently active and motivated community to take action and

steer the development of the environment from the very beginning on their own terms, the identity of the area is likely to develop gradually over the years, already before the construction of the area is finished. Therefore, it can be concluded that through temporary uses and continuous activation of the community from the very beginning and throughout the development process, the potential of both the community and the area can be harnessed to their full potential.

APPROACHING THE DEVELOPMENT PROCESS AS A CASE OF CO-DESIGN

To conclude the findings derived from the study, it can be established that the preconditions for the participatory development process of Konepaja include the following: that the community is enabled to participate from the very beginning and throughout the process; that the communication and discussion regarding the progress is continuous and transparent, with active evaluation and steering of the direction of the development when needed; and that the community is enabled and encouraged to activate the area throughout the development process by initiating experimental interim uses and concrete interventions. In this particular case, the collaborative and participatory development of Konepaja can be perceived as a continuous process that is inseparable from the official development process of the area, referring to the restoration and renovation process of the Assembly hall and the surrounding public spaces run by the operator and other stakeholders involved. This means that the participatory process of Konepaja is a parallel process adjacent to the official development process, with the former steering the direction of the latter continuously through the active input of the community, and continuous discussion and validation. Thus, approaching the development of Konepaja as a case of co-design requires perceiving participation in a comprehensive manner, where participation is not conducted in isolated points during the process but is rather continuous and sustained. This means that the input of the community is not limited to validation or generation of ideas, but that, instead, the co-design process enables the community to become the most central catalyst for shaping the area through collective action. Thus, by creating conditions for the community to assemble and take action themselves by means of co-design, the community members can steer the development of the area through practical action and initiatives stemming from themselves. These actions may include interim uses, occupation of spaces and creation of concrete interventions that further shape the physical environment and generate activity in the area. Through experimentation and collaboration of actors, these actions can attract other visitors into the area, and lead to establishing permanent uses that steer the development of the area. Therefore, it can be concluded that approaching the development of Konepaja as a case of co-design would first entail developing the conditions for the community to catalyze and sustain a bottom-up directed development process over time. The goals of this part of the process would include establishing a sense of community, empowering the community members to assemble and mobilize for action, and providing them tools for collaboration and autonomously sustaining the process further. This first part of the process is where a designer could contribute: by aiding the community to establish the foundation for a bottom-up directed development process by means of co-design, a designer can enable setting a direction for a sustainable development process of Konepaja (Figure 50), where the area and its identity genuinely stem from the actions of the community.

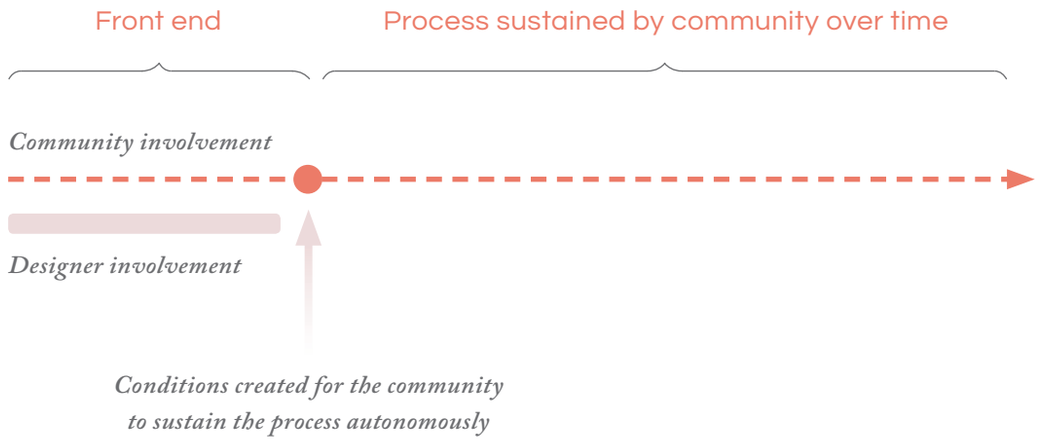


Figure 50: Proposed co-design process of Konepaja

Based on the fieldwork findings, three main dimensions are identified that need to be considered in the development of Konepaja: the physical dimension, the service dimension, and the social dimension (Figure 51). The physical dimension, i.e. the built environment, comprises the old, invaluable buildings designed by Bruno F. Granholm, creating the unique architectural setting that stands out from the surrounding environment. While it is acknowledged that the buildings need to be restored to comply with contemporary building and safety standards, the rough and unfinished aesthetics of the environment that depict the history of the area

Figure 51: Three dimensions of Konepaja that build a distinctive place identity

should be retained and sustained. This is not only due to the fact that the environment is protected in the city plan, but also as the distinctive architecture is what creates the unique aesthetical environment and atmosphere at the site. Furthermore, the former industrial buildings are apt for temporary uses and creative activities, as the unfinished, inspiring milieu encourages experimentation and collective problem solving, which can attract creative actors. Focusing the proposed participatory process on the community instead of the built environment enables the community to shape the buildings and spaces of Konepaja through activities that stem from the community actors. Thus, it is important that a sense of care and shared ownership is established among the community who occupies the buildings; by creating an emotional connection and a sense of ownership, the community may inherently protect and maintain the buildings through collaborative effort. The service environment, in turn, refers to the services and activities that take place at the site. They are the main reason for visitors to come to Konepaja; by providing a variety of different activities and services that respond to the needs of both the local residents as well as other visitors, a greater amount of people can be attracted to the site. Therefore, the activities and services should depict both practicality in order to meet the needs of the local residents, as well as provide a distinctive visitor experience to attract both national and foreign visitors. Temporary uses, such as events and experimental activities, need to be enabled, as some of these interim activities may become permanent over time, and thus further steer the development of both the environment and the identity of Konepaja.

Finally, the social dimension refers to the community and actors who do not only provide the services and activities at Konepaja, but also create the soul of the place. They are the actors who bring life to Konepaja; the actors who sustain and shape Konepaja into what it can ultimately be, to its full potential. The social dimension, i.e. the community, should not be controlled, but rather nourished and empowered, and enabled to actualize their ideas that develop the place further in an innovative and unique way. These actors are not limited to service providers only, but also other types of actors, such as artists and designers who work at the premises, and shape the shared environment through their collaborative, everyday activity. Therefore, the goal at the core of the participatory development process of Konepaja can be concluded: to harness the social dimension, the community of Konepaja, as a self-sustaining force and resource who will contribute to maintaining and developing the physical dimension through collaborative effort, and to creating distinctive and unique activities and services that attract visitors and further shape the physical environment. With the social dimension of Konepaja established as the most important of the three due to the fact that it drives the development of the two other dimensions of the area as well, it can be derived that, by utilizing means of co-design and participation, a designer can help establish the foundation for the community to thrive, and help define a direction for the sustainable development of Konepaja together with the community members. In conclusion, enabling the community to participate in collaborating and establishing a direction for the further development of Konepaja can enable the community to be empowered, united and mobilized for collective action, which can further lead to sparking a sustained, bottom-up directed development process of Konepaja. By enabling the actors to develop a deep sense of community and collective ownership, empowering them to take action upon their own environment, and creating a strong shared vision that will guide them in the development process over the years, conditions can be created where all the three dimensions of Konepaja evolve in symbiosis, driven by the thriving social dimension of Konepaja. Therefore, it can be concluded that approaching the development of Konepaja as a case of co-design can lead to establishing the conditions for Konepaja to develop in a bottom-up directed, sustainable way, where the physical environment as well as the activities and services stem from the community, enabling the building of a distinctive and strong place identity.

Results

8

Conclusions & review

8.1 CONCLUSIONS, I: DESIGNERS IN LEADING SUSTAINABLE CHANGE IN CITIES BY MEANS OF CO-DESIGN

The comprehensive study comprising of both theoretical review and fieldwork analysis leads to deriving conclusions that enable constructing well-informed and holistic answers to the research questions posed in the introduction chapter of the thesis. To elaborate the main findings of the thesis, the conclusions are divided into two separate sections. First, the main findings regarding design as an approach and profession are summarized, leading to discussing the roles that a designer might adopt in a participatory design process to contribute to the development of more sustainable cities. In the second sub-chapter, the findings are applied on the case study, where it is elaborated at a more practical level how a designer might aid a community-driven development process by means of co-design in the case of Konepaja. Finally, concluding remarks are followed by the review of the thesis process, and the evaluation regarding the accomplishment of the set objectives. Furthermore, additional questions are posed for potential future research.

RQ #1: How has design as an approach and profession changed in becoming applied in the urban context?

The increasingly complex societal setting and issues, such as urbanization and climate change, are engendering challenges in cities that require the collaboration between a diverse range of professionals and citizens alike. This leads to a significantly emphasized responsibility of the design profession, which requires designers to contemplate and reset the priorities in their profession. The contradictory objectives currently adopted by design of fueling the economic growth and simultaneously striving for generating sustainable solutions for the society to overcome the pressing wicked problems are in serious conflict. As inherent problem-solvers, designers need to take the lead in steering the current direction of development towards a sustainable society, where social and ecological wellbeing are prioritized over economic profit. Questioning the conventional business-as-usual practices in different domains, as well as redesigning the current models and systems are fundamental. Alternative models, such as circular economy and sharing economy are already practiced to some extent, but more thorough changes are required both in design education and professional design practices to rethink how these models could be sustained and applied in broader scale. The transition from object-led to purpose-driven mindset in design has been relatively slow, with design profession still deeply rooted in the former rather than the latter, even though the intentions might have been the opposite. This does not mean that designers should abandon the material and physical dimension of their work, but rather that more responsible practices are needed. Thus, the focus of design should shift to designing sustainable and circular systems where all factors, including both the physical and intangible dimensions of the products, production, life cycle, societal implications and all actors and stakeholders involved are considered. While the change towards more sustainable practices has already been set in motion, a cultural change towards one that emphasizes the designer's responsibility in not only assigning more sustainable materials to products, but also rethinking and redesigning the way in which goods and services are produced, consumed and whether they are needed in the first place, is crucial. Therefore, it can be concluded that design, both as an approach and profession, is becoming increasingly driven by the purpose of contributing to sustainable change, and is thus adopting a critical, even activist mindset and a systemic approach in order to respond to the needs of contemporary, complex societies.

An emphasized need for more responsible practices is especially required in the context of continuously growing cities, where acknowledging design as a means to approach complex issues and generate solutions that are also socially sustainable is urgent. The recently emerged collaboration between cities and designers is a step towards the right direction, with design recognized as a means to obtain invaluable knowledge that can affect not only the design of services and environments, but also strategies that

guide also farsighted decision-making in cities. It is important that the aims of the application of design are not limited only to the generation of brand value, or enhancing solutions and systems that may be obsolete or even counterproductive. Furthermore, instead of restricting the utilization of design only to individual projects, design should be a continuous and inseparable part of how cities are designed, as design can contribute to developing not only more attractive services and environments, but also to rethinking broader systems within cities. Thus, rethinking conventional models and systems is fundamental also in the context of cities, where designers may contribute to creating innovative, sustainable and human-centered solutions and practices that better respond to the needs of the contemporary, interconnected citizen society. The study conducted for the thesis shows that designers can provide cities with a multitude of capabilities that help create more citizen-centered solutions in both the built environment and the service environment. Many of these capabilities are inherent in conventional design practices and education, such as visualizing abstract values, anticipating future needs, developing ideas through iteration, prototyping and fast experimentation, as well as approaching all tasks from a human-centered perspective. By working in continuous, tight collaboration simultaneously with both citizens and cities, designers can help bridge the perceived gap between the two, as the needs of citizens and cities are often contrasted as opposites. Designers can help increase mutual understanding between the actors and obtain knowledge that helps to identify the root causes of problems, which can lead to significantly accelerated processes, saving of resources and more appropriate and sustainable design solutions.

As the findings of the thesis further suggest, the most important premise for designing in the urban context is accepting participation as an intrinsic part of the design process. Thus, adopting a participatory mindset that guides development processes from start to finish is fundamental. Based on the study, it is apparent that this requires work from both designers and cities alike, as it is apparent that the current participatory practices are inadequate and, to a large extent, focused on the reactive and passive forms of participation. This can lead to outcomes that are inappropriate and unsustainable. Due to the lack of proper understanding and knowledge of what participation can ultimately be, how it can be applied in an appropriate manner and what purposes it serves, the findings of the thesis imply that participation is often perceived in a negative light by both professionals who conduct participation, as well as citizens who take part in the participatory processes. The study shows that professionals, both within the design field as well as within cities, may view participation as an obligation that consumes resources and leads to decisions that compromise the quality of end results. On the other hand, citizens may view participation as a frustrating process due to the fact that, despite the engagement and the investment of personal time and effort, their wishes and input may not be conveyed in the final outcomes of the development processes. Oftentimes, citizens are enabled to take part in the development processes only after it has already been decided what will be done, even though collaboration should start from the very beginning. As citizens are commonly provided with only two ways to affect the development plans in the urban environment, which are filing complaints and validating predetermined plans, the development processes are often prolonged and resources may be thus wasted. Therefore, it is evident that the prevailing participatory practices are not sufficient, and that citizens need to be more actively engaged in the development processes also as initiators of change and in defining the problems to be solved in the first place. In practice, this means that the processes need to be more open and transparent, and that citizen involvement needs to be practiced through a continuous process, instead of in isolated points during the development processes. Furthermore, bottom-up directed, citizen-initiated changes and interventions should be encouraged and acknowledged as a prominent means for participation in cities, with the initiatives recognized to stem from the genuine needs of citizens. By enabling and engaging citizens to actively shape their living environments, and also encouraging direct

action and even urban activism where citizens solve problems firsthand and take action upon their shared urban environment, numerous social implications can be achieved that may induce a broader impact on communities and the society at large. These implications include the increase in social capital, strengthened sense of community, shared ownership and responsibility over urban environments, as well as empowerment within both individual citizens and communities. This is why it is essential, critical even, that designers working in the urban context inherently adopt a participatory mindset, where the citizens are not viewed merely as sources of information, but also as an invaluable resource who may have the power to transform urban environments through collective action when provided the necessary tools, platform and support.

RQ #2: What are the key purposes, practices and methods affiliated with participation?

RQ #3: What roles can a designer adopt in a co-design process?

In adopting a participatory mindset, the practices and methods of a designer, as well as the design process, change in various ways. First of all, the dynamics between a designer and users shift, as users gain a significantly more central role in the design process. This leads to a change in the role of the user, as the user becomes more than merely a participant who informs and inspires the design process conducted by a designer, and instead adopts the role of a co-designer in the design process. In this shift, the roles of a designer are also expanded and partly changed, as a designer becomes the person who facilitates the design process and guides the participants throughout the process. Hence, a designer becomes a facilitator of interaction, the design process and the face-to-face collaboration; a mediator of often conflicting interests; the creator and provider of tools to enable stakeholder expression and communication of ideas; and a design researcher who obtains and interprets data, including tacit and latent knowledge (Figure 52). Furthermore, a designer utilizes their inherent skills in visualization, as visualizing and concretizing abstract ideas that do not yet exist can

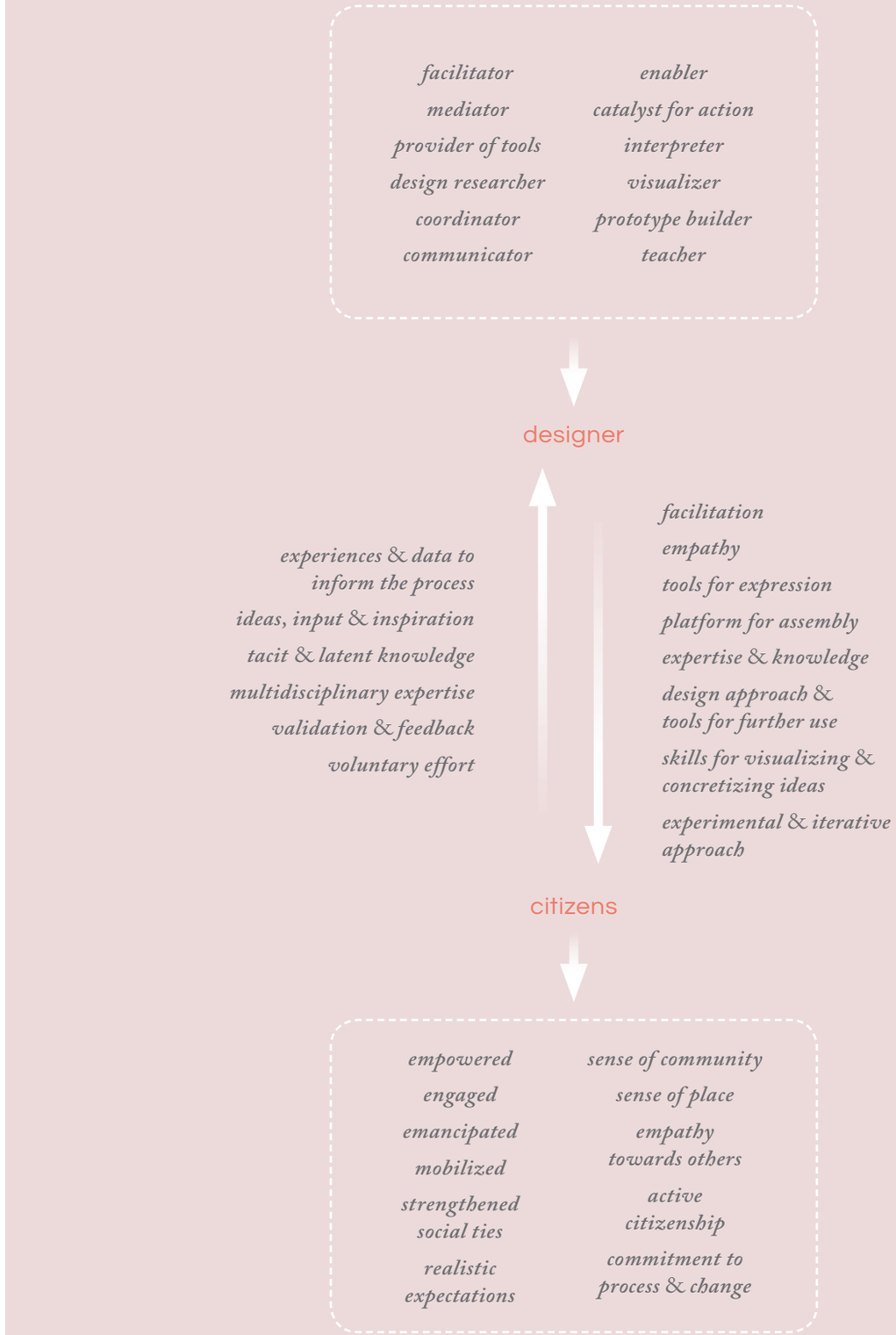


Figure 52: Summary of potential roles & social implications of co-design in cities

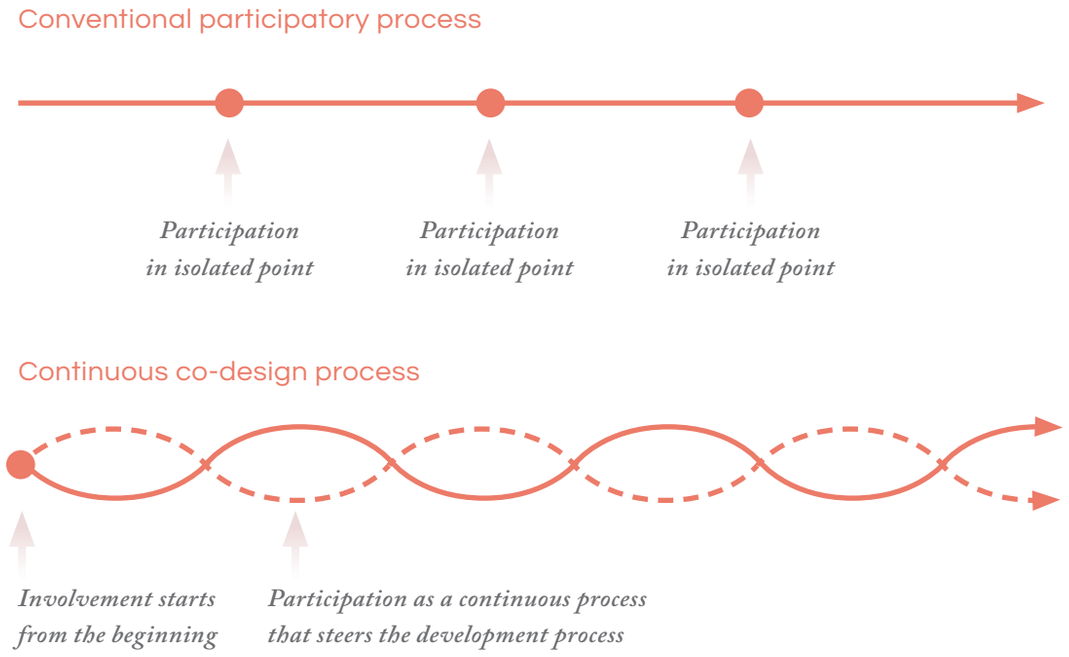


Figure 53: Conventional understanding of participation vs. participatory mindset

increase mutual understanding and help engage the participants in pursuing shared goals. Thus, through shared and equal visual language, complex entities and ideas can be turned into easily approachable and understandable visual representations. The culture of fast experimentation and iteration inherent in design practice enables the participants to build and test ideas in practice, and create prototypes to develop further. By adopting participation as a mindset, co-design becomes viewed as a tool and approach that can help achieve sustainable change in various different domains. This leads to a designer becoming a teacher, who enables mutual learning between stakeholders, and also teaches the mindset and methods relevant in design practice to non-designer stakeholders. This way, a designer can help smoothen the transition towards change-oriented goals, decrease the level of resistance, enable the community to commit to the process, and thus also provide the community the tools needed to maintain and sustain the process and its outcomes. This is especially important in the urban context, where the development processes are long and farsighted, which is why the commitment of the community is essential in upkeeping the achieved change on their own. By enabling the users, stakeholders and the community to take part in a participatory process from the very beginning, a designer can also become an enabler of collaboration, and a catalyzer for a change to occur within the community. Thus, a co-design process becomes a platform for the community to assemble, take action and achieve a number of social implications, which is why the design process itself gains an emphasized importance in co-design.

While it is established that there is no single process model or method that applies to all cases of co-design, general conclusions can be derived of a participatory design process. In a co-design process, the front-end gains an emphasized importance, as adopting a participatory mindset presumes that the users are involved throughout the design process, from the very beginning. This means that users take part already in defining the issues that are aimed to be solved by means of co-design, which is why conducting a thorough research and establishing a

relationship, and thus building a sense of empathy and trust among the stakeholders, is essential. Approaching the design process in an open-ended manner where the participants can help refine the brief and thus shape the direction of the process in the front-end can lead to inducing societal value, denoting long-term, sustainable impact. Furthermore, enabling participation from the very beginning leads to ensuring that the design meets the needs of the users, which can ultimately lead to accelerating the design processes. As the findings of the thesis further suggest, adopting a participatory mindset leads to re-establishing the conventional understanding of participation, where participation and co-creation are perceived as a set of methods that are utilized in secluded points during the process. Instead of viewing participation merely as a means to obtain user input and knowledge at certain points in time (Figure 53), through a participatory mindset participation is viewed as a philosophy, and ideology even, that guides the process from the start to the end (Figure 54). The premise of this ideology is based on two distinctive values that define participatory design at the core: first of all, as participation builds on the value of democracy, the users have the moral right to take part in shaping the designs that affect their lives; and second, the participants are viewed as a source of knowledge and skills that are essential in resulting in appropriate design outcomes that meet the needs of the users. Thus, one of the main purposes affiliated with participation is obtaining explicit, observable as well as tacit and latent knowledge from stakeholders by utilizing various methods and tools. Such methods and techniques may include observation, discussions and different visual and creative tools of co-creation, where the users co-produce creative artifacts, such as drawings and models. Even though multiple channels, such as social media, should be utilized, frequent face-to-face sessions are vital in a co-design process. This is because face-to-face interaction helps the stakeholders to build empathy with each other and to collaborate more efficiently, and designers can obtain more relevant and nuanced information through observation of gestures and informal conversations. Shared discussions can lead to the increase in mutual understanding and also

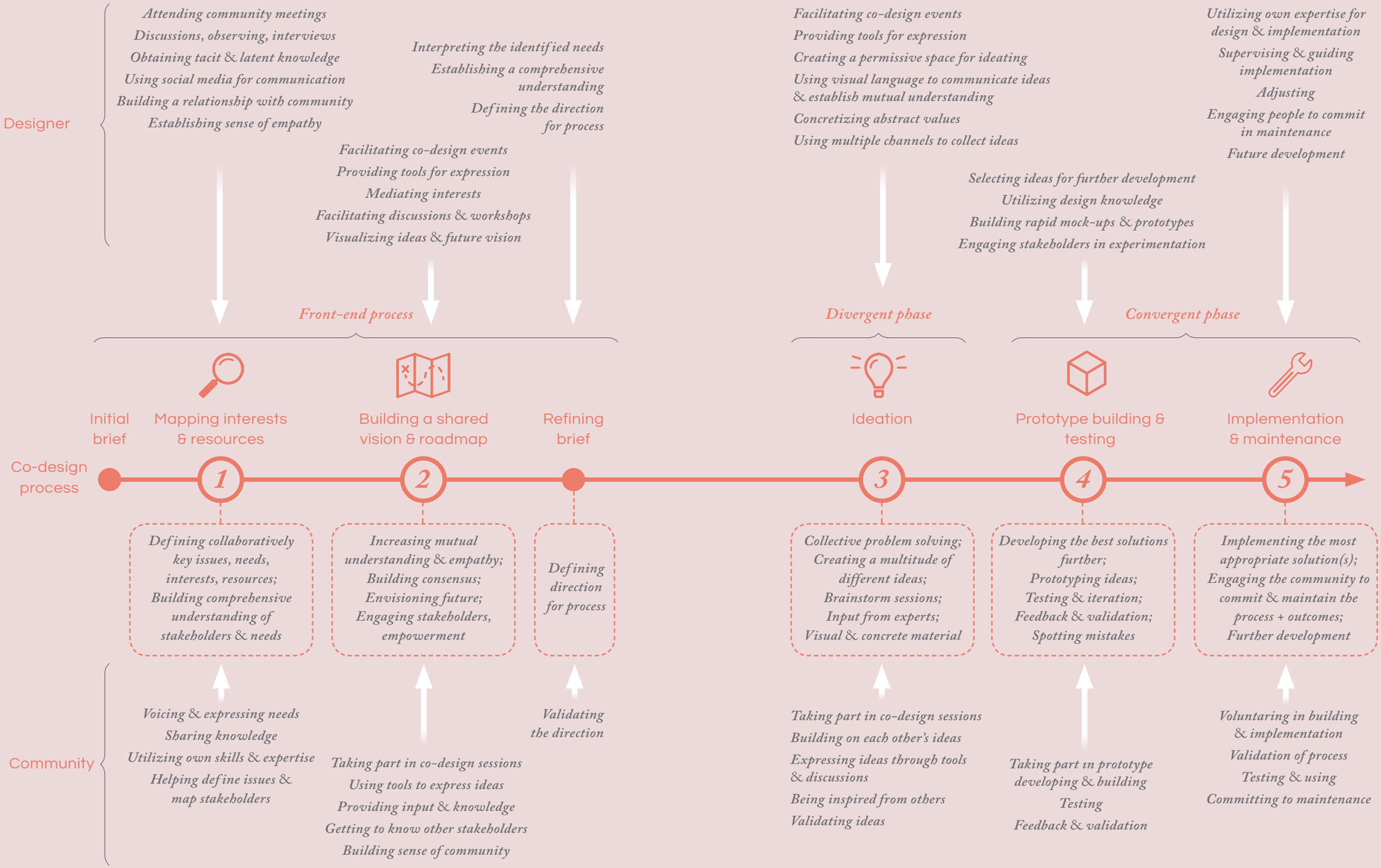


Figure 54: Summary of different phases and input that may be involved in a co-design process

Figure 55: Summary of discovered attributes affiliated with high quality participation

help citizens to have more realistic expectations of the design process. At co-design events, participants can take part in discussions, problem-solving, ideation, giving feedback, generating knowledge in various forms and engaging in voluntary effort. At these face-to-face sessions, a designer can help facilitate activities and provide tools for expression; visualize and concretize abstract values and ideas that help establish mutual understanding; and collaborate on solving problems as one of the co-designers, and thus provide input from their specialized perspective. The sessions can help a designer to build a more comprehensive understanding of issues, make well-informed decisions, and construct interpretations that lead the process further.

Based on the study conducted for the thesis, it becomes evident that there are various additional purposes and broader implications that can be induced by means of co-design and participation, especially in the urban context. In order to achieve these implications, it is crucial that participation is conducted in good quality. The attributes entailed in high quality participation include distributing the decision-making power to the participants, which means that the input of participants genuinely steers the process and the outcomes; ensuring that the process is deliberative and is thus based on two-way interaction; and that the participants are enabled to affect the large-scale decisions and the broad perspective, instead of limiting the power to defining small-scale details that have little relevance in the big picture (Figure 55). Furthermore, it is crucial that the participants are enabled to participate from the very beginning, with ideally the citizens themselves acting as initiators for change to solve issues that they want to improve in their living conditions and environments. Thus, it is critical that participation is not only limited to the validation of pre-developed ideas, and that participation is practiced in a continuous manner instead of through one-time occasion during the process. Moreover, it is important to note that participants should not include end-users only, but also other relevant stakeholders and professionals who can bring relevant knowledge into the participatory process and collaboration. Through high quality participation, various social implications can be achieved: for example, the actors can be empowered as individuals and communities; the social ties of actors can be strengthened; a sense of trust between citizens and the city can be established and communication improved between the actors; the level of resistance can be diminished towards change, and a sense of empathy built between actors. Furthermore, participation can enhance the commitment of citizens to the process and change-oriented goals, thus establishing a sense of shared responsibility and group ownership, and potentially leading the citizens to be motivated to sustain the achieved change. Therefore, the results of the thesis suggest that participation, when conducted in high quality, can have broad implications on the citizens and communities themselves. Ultimately, co-design can lead to harnessing the community as a resource in catalyzing and sustaining a process towards sustainable change in the urban context. In practice, this means that in the context of cities, a co-design process can empower the community to take the lead in the development of their environment through concrete action. Therefore, it can be stated that one of the ultimate goals in participation is establishing active citizenship, where citizens are provided a platform, knowledge, tools and conditions to actively contribute, shape and build their city and society together with others.

8.2 CONCLUSIONS, II: THE ROLE OF DESIGNER IN AIDING COMMUNITY-DRIVEN DEVELOPMENT PROCESS OF KONEPAJA

RQ #4: How might a designer aid a community-driven participatory development process in the case of Konepaja?

As it was established in the analysis of the case study, the main goal of the hypothetical participatory design process of Konepaja area is to create the framework and conditions for the community to take action upon their environment, and to develop the area and its identity in a bottom-up directed process. There are several implications that approaching the development process from this angle would induce.

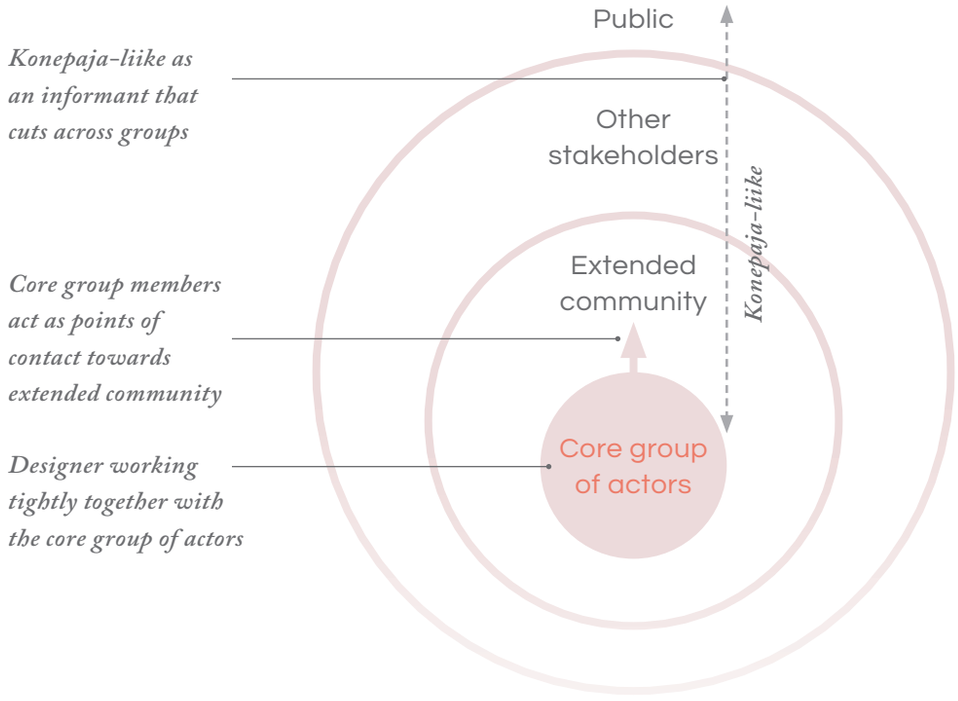


Figure 56: The core actor group

First of all, this means that there would be no definitive end result - not at least in the same sense that there would be in a conventional design process. This approach denotes that the development of Konepaja is never finished, as it evolves and develops in symbiosis with the community who occupies and uses the physical environment. Second implication is that, as there is no definitive end to the bottom-up directed development process, the process is sustained and, thus, lasts for a long time. However, a designer can help in the beginning phase to spark action and set the direction for a sustainable development process that stems from the community itself, and that is sustained by the community autonomously over the years. This way, the concrete end result for the beginning phase of the development project would entail creating a shared vision for the community to strive for, and a foundation for the community to act on that vision. This leads to the third, and important, implication: the application of design should not be viewed as exclusive to designers only - instead, it should be perceived as an approach, entailing a set of methods and tools, that the community can adopt and apply throughout the sustained development process, and potentially also in their further projects beyond Konepaja. As the theoretical review of the thesis suggests, design can be a powerful tool in attaining broader, sustainable change - hence, by teaching communities to apply and practice principles of design, a more sustainable future might be achieved in a broader sense. Therefore, in the case of Konepaja, the participatory design process can also become a platform for the community to learn how to apply design and its principles, such as iterative and experimental approach, on solving problems and developing the area, and the community, in a more sustainable manner over time.

The experiences and observations gained during the fieldwork led to obtaining an understanding of the roles that a designer might adopt in practice to guide the participatory process that aims to establish the framework and conditions for the development of the community, and hence the entire area of Konepaja. The first key finding is that identifying the key actors and establishing a relationship with the representatives of those actor groups is crucial in a community-led development process. As the community as a whole is comprised of a large number of members in total - for example, it would be impossible to collaborate directly with all the thousands of residents of Konepaja area - it is important to form a core group of representatives from all the key stakeholder groups who commit to the co-design process by investing personal time and effort. This core group of stakeholders, consisting of at least a few participants from each of the key community groups, can help the designer to establish an understanding of the different perspectives and issues rising from the diverse range of users. Thus, the core group might include representatives from at least the following groups: the entrepreneurs, the local residents, and urban activists of Konepaja-liike, who are identified as the three key actor groups in the development process. Additionally, other stakeholders might also be included, such as the operator of Assembly hall, service providers from the nearby area and experts from relevant backgrounds - however, it is important that the core group is not excessively large, as it becomes increasingly difficult to coordinate and establish a connection with the members as the group grows in size. The active, volunteered representatives take directly part in the co-design process from the very beginning, and also act as points of contact to other members of the extended community (Figure 56). Over time, a designer can build a relationship with these selected participants, and thus enable an improved and more honest communication through a mutually established sense of empathy and trust. By communicating directly with these participants and enabling them to take part in the discussions and co-design sessions from the very beginning, it can be ensured that the most relevant perspectives are included in the decision-making process. Based on the findings of the fieldwork, Konepaja-liike is identified as the key actor group in the sense that Konepaja is generally personified through the members of the network: they are the most active actors who inform and mobilize people by utilizing social media, and the members are recognized and trusted by the rest of the community. Thus, the group might adopt the

key communicative role in the development process towards the extended community of actors. By identifying the key members and establishing a core group consisting of a diverse yet confined number of actors, a designer is better able to communicate and build a sense of trust between the members, and to work in a tighter, smoother and more efficient manner with different stakeholders.

The second conclusion is that a designer can become a facilitator of the co-design process, sessions and events, and a mediator of interests rising from different perspectives. The collaborative sessions can serve as a platform for the community in multiple ways: for example, by taking part in co-design sessions and events, such as workshops and meetings, the core community members can get to know the fellow actors of the community, as well as build a sense of empathy through face-to-face discussions and increased mutual understanding. Conflicting viewpoints can be explained and discussed, which can help build a consensus and lead to a stronger sense of empathy and trust. By collaborating and solving problems collectively, the actors can be empowered, and a stronger sense of community can be built. With strengthened social ties, a shared will can be established to develop Konepaja in a way that serves the common interests instead of those of an individual actor group. Furthermore, collaborative sessions can serve as a platform for mobilizing action; well facilitated co-design sessions can lead to the community members to collectively experiment, as well as to express and build on each other's ideas. In these sessions, a designer can adopt the role of a mediator of various interests, a facilitator of the event and activities, and a researcher who obtains and interprets data through provided tools and by utilizing different design methods. In this sense, a designer might provide rather guidance than direction in the process, meaning that a designer provides the platform - the sessions, tools and initiation - for the community to assemble, share knowledge, learn and mobilize to take action upon their shared environment. Through discussions, activities of co-creation and the utilization of a wide range of selected methods, a designer can obtain also deeper levels of knowledge, interpret the gathered data, and make well-informed conclusions that guide the process further. As an expert of design, a designer can take part in collaboratively coming up with solutions in the co-design activities and sessions, and hence also contribute to shaping the outcomes of the sessions and the process. Furthermore, a designer can significantly improve the communication between various stakeholders by utilizing the capabilities to visualize and concretize abstract matters; by giving visual and three-dimensional shape to ideas, a designer can help clarify and validate direction, crystallize main findings gathered in the co-design sessions, help others express their ideas and make easily understandable communicative material that increases mutual understanding. Therefore, by organizing and facilitating the co-design process, providing tools for expression of ideas and utilizing their professional expertise for both communicational purposes as well as in contributing to the outcomes of the sessions as co-designers, various implications can be attained that both guide the process further and catalyze change within the community itself.

The third key point that can be derived of a designer's potential role in the participatory development process of Konepaja is that a designer can help the community to shape the environment and create a concrete impact on the area by introducing the culture of experimentation, iteration and fast prototyping that are inherent in design profession. A designer can provide the community with tools and expertise to create concrete interventions of different scales on their area that might induce a larger impact. By ideating, building and implementing small-scale interventions in the area through experimentation and fast implementation, the process and progress of the area becomes tangible and visible also to the rest of the community, and further action may be inspired. These interventions might include, for example, structures that spark a certain activity, such as outdoor seating, an urban garden, a canopy, an amphitheater or pop-up stalls for services. The small-scale interventions might become catalysts for activities for the neighborhood, such as organizing communal events, and they might also lead to inspiring other community members to build other concrete

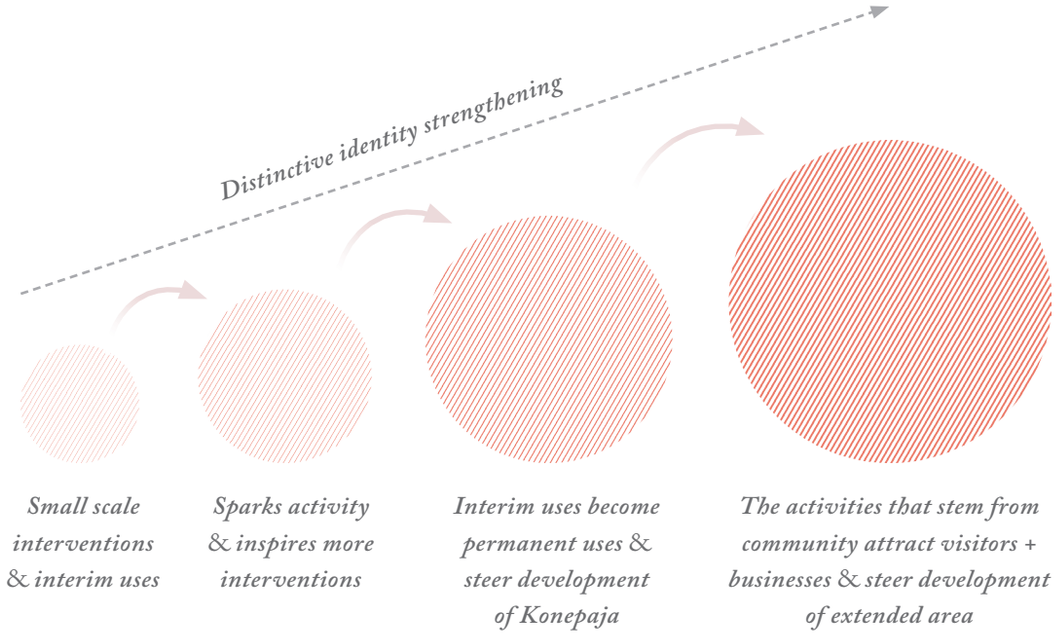


Figure 57: Small scale interventions in inducing broader impact

interventions that further shape the environment and its activities. Through fast experimentation and prototyping, the community might test what works and what does not - potentially, some of these interim uses and structures may be further developed into permanent elements that contribute to shaping the area and activities also in the future (Figure 57). Moreover, this kind of practical collaboration can lead to various social implications: the sense of community can be strengthened, the participants can be empowered when their input is used to create a concrete impact, and new skills can be mutually learned. A designer can initiate, encourage and enable hands-on activities by providing the knowledge and tools for interventions, and thus enhance a culture of fast prototyping, experimentation and practical action among the community of Konepaja. Moreover, a designer can use their expertise in, for example, prototyping and implementation, as well as giving concrete form to the ideas of the community. However, it is important that the construction as well as the design of these elements would be products of community effort, rather than determined by the designer who facilitates the process. By utilizing their expertise in design and implementation, a designer can help the community to concretize and test their ideas in use, and thus contribute to the bottom-up development of Konepaja through practical action.

To conclude the analysis and the findings regarding the roles of a designer in the community-driven development process of Konepaja, twelve points are summarized to elaborate the potential contribution of a designer and co-design in this particular case study (Figure 58). A designer approaches a development process with a human-centered mindset, which entails the goal to help develop environments that better meet the needs of the users. Thus, a designer aims to empathize with the community, and establish a relationship and a sense of trust with the individual members of the core group of actors by working directly together with them. By inviting the various actors to participate and build on each other's ideas, a co-design process can become viewed as a platform, where different actors assemble, get to know each other and solve issues collectively. The discussions and collaboration can help the actors with opposing views to establish mutual understanding and empathy towards the problems and interests brought forth by other actor groups. Through the established sense of trust, the community can become a source of knowledge, with also deeper levels of knowledge accessed and obtained through the utilization of various co-design tools and methods. A designer can help participants to communicate their ideas visually, and also to interpret and concretize the gathered data and ideas into easily understandable representations, such as sketches and scale models. The future-oriented approach inherent in design practice can help the community to imagine what does not yet exist, create different future scenarios, and ensure that the generated solutions also serve future needs. By adopting a more objective perspective and striving for understanding various viewpoints on issues in a systemic manner, a designer can create holistic interpretations that consider different relevant viewpoints and factors. This way a designer can also help bridge and mediate sometimes conflicting interests of different stakeholders. Ultimately, a co-design process can help generate social value within the community in various ways; the actors are empowered to take action themselves, and the social ties between the actors are strengthened. Additionally, place attachment can be enhanced, which can also motivate actors to collaborate for the common good when they care for the environment that is developed. A designer can help to interpret and visualize a shared vision, that engages the community and motivates them to act towards common goals. The journey to the vision can be broken into smaller, attainable goals through a visualized roadmap that helps concretize the long-term vision. The culture of experimentation introduced by design can enhance the existing activist mindset of the community through fast prototyping, where ideas are tested in practice through an iterative process of trial and error. This can lead to mobilizing the community to take concrete, hands-on action upon the environment, and to create interim uses and physical structures through experimentation that may activate the urban space, and potentially even shape the physical environment and steer the broader

1

Human-centered approach

A designer approaches the development with a human-centered mindset to create solutions that meet user needs, and aims to establish a sense of empathy and trust with actors.

2

Creating a platform for collaboration

A co-design process can become a platform for the actors to meet, collaborate, solve problems and ideate together, which can also increase mutual understanding.

3

Obtaining tacit & latent knowledge

By providing tools and means for expression, a designer can selectively apply the methods of co-design to obtain deeper levels of knowledge that inform and guide the process.

4

Visualizing & concretizing ideas

Visualizing abstract matters can enhance mutual communication and give form to the ideas of stakeholders.

5

Anticipating future

By providing future-oriented approach and tools for anticipation, the generated solutions can better meet the needs of also future users.

6

Making holistic interpretations

Systems thinking leads a designer to interpret the obtained knowledge through co-design methods and observations against the comprehensive context.

7

Generating social value

Through face-to-face collaboration and continuous involvement, a strong sense of community can be established, and the actors can be empowered.

8

Enhancing place attachment

Enabling the community to participate in shaping their shared environment can deepen sense of group ownership of a place & enhance place attachment, leading to motivation to contribute to common good.

9

Envisioning a shared future

A designer can help concretize & visualize a shared vision that engages the community and guides them over time. A roadmap can be created to break the journey into smaller, attainable goals.

10

Culture of experimentation

A designer can help enhance a culture of experimentation, where the community actively aims to solve problems through trial and error, and by collective experimentation of ideas.

11

Mobilizing concrete action

Co-design process can enable the community to assemble and take collective action. A designer can help the actors to realize concrete interventions that shape and activate the urban environment.

12

Enabling learning of design

Through co-design process, a designer can enable the community to learn to approach the development with methods and mindset of design, which can enable the community to sustain the process over time.

Figure 58: Summary of how a designer might aid the community-driven development of Konepaja area

future development of the area. Finally, a designer can adopt the role of a teacher, where the community is enabled to learn about the approach, methods and mindset of design. By learning, adopting and utilizing the principles and ways of thinking inherent in design, the community can be enabled to sustain the bottom-up directed process independently further. This may ultimately lead to establishing the foundation for a more distinctive and sustainable Konepaja, where the development of the area stems from the actions of the community. Therefore, by approaching the development of Konepaja by means of co-design, a designer can help harness the community into a transformative resource that builds the area and the place identity of Konepaja in a distinctive and sustainable manner from the bottom-up. Ultimately, engaging the community in a genuinely participatory development process of Konepaja can lead to potentially inducing also broader positive impact on the urban environment, its inhabitants, and even the city of Helsinki at large.

8.3 CONCLUDING REMARKS

The comprehensive study conducted for the thesis enables establishing an understanding of the potential direction for the application of design in the urban context, and the roles that designers might adopt in co-developing more sustainable cities. The findings of the thesis suggest that these roles are, first and foremost, social: it is claimed that the focus should shift towards perceiving design as a tool for collaboration, communication and interaction, and for mobilizing people to act towards shared, collectively determined goals by means of co-design. Accepting this direction challenges the conventional understanding of a designer as the most central decision-maker in a design process, who ultimately determines the final outcomes. Thus, redefinition of the current mindset is required in both professional design practices as well as in design education. Striving for genuinely sustainable solutions in various domains requires changing the focus from the outcomes of design determined by designers, to the processes of co-design and the by-products and implications that may be generated and induced through collaborative processes. As it was elaborated in the thesis, addressing the complex issues of contemporary society, especially in the context of cities, requires multidisciplinary collaboration and rejecting the idea of centralizing decision-making power in development processes to the hands of professionals only. The development of sustainable cities, entailing the environments, services, strategies and any other solutions that aim to improve the quality of living of the users of those solutions, requires harnessing the input, experience and knowledge of the citizens as well. Beyond viewing citizens as sources of knowledge, however, the initiatives rising from the citizens and communities themselves need to be acknowledged as a prominent form of direct participation, with citizens becoming viewed as proactive co-designers who collectively initiate change in cities. In light of this finding, it is proposed that further research should be conducted and awareness raised among both design professionals and cities on the practical means and possibilities to integrate citizens and bottom-up initiatives into change-oriented development processes in a meaningful manner. Moreover, exploring the potential of employing designers to conduct open-ended co-design processes together with communities, and thus potentially inducing broader, social change by means of co-design, provides a fruitful ground for further examination in practice. It is asserted that the full potential of the application and utilization of design and designers in the urban context is yet to be discovered. Therefore, more continuous collaboration between designers and cities is called for, with the aims to expand the understanding of what can ultimately be achieved by means of design, and how designers might contribute to co-developing more sustainable urban environments and cities of the future.

Through the study, it was discovered that a participatory mindset is crucial for designers to adopt in order to contribute to the challenging task of achieving a more sustainable development direction in cities that are continuously growing, both in size and complexity. This requires

broadening the perception of the notion of citizen participation both within design profession and cities, and obtaining more practical understanding of the means and potential implications affiliated with high quality participation. Instead of viewing participation merely as an obligation and a set of methods for citizens to validate predetermined decisions or provide limited input in controlled circumstances during development processes, it is of critical importance to approach the change-oriented processes with a participatory mindset. This leads to viewing citizens as invaluable sources of knowledge, initiators of change and co-designers, who are continuously involved in the development processes and whose input genuinely affects and steers those processes and their outcomes. Thus, it is proposed that citizens should collaborate with cities in open-ended processes from the very beginning and throughout the processes to result in outcomes that truly meet their needs. Besides the improved outcomes and accelerated processes, the results of the thesis suggest that participation and co-design provide means to generate also broader societal value, and various social implications that might contribute to more sustainable and empowered communities. Ultimately, participation can encourage active citizenship, strengthen the ties between community actors, empower and mobilize citizens to collaboratively solve problems firsthand and act on improving their living environments through collective action. Therefore, based on the findings of the thesis, it is claimed that co-design can provide cities with means and practices that may significantly improve the levels of quality, distinctivity and social sustainability of urban environments. Perceiving a co-design process as a platform for generating broader societal impact within communities and individual citizens leads designers, as facilitators of those co-design processes, to become enablers of harnessing the power of citizens and communities to their full potential. It is proposed that by means of co-design, communities can become a transformative force who not only generate concrete impact on their living environments, but also within themselves and, thus, potentially also in the city scale. Therefore, it can be concluded that by adopting a participatory mindset and rethinking the prevailing, conventional design and development processes, designers can enable a broader change towards sustainable cities that are developed together with citizens.

8.4 REVIEW & SUGGESTIONS FOR FURTHER RESEARCH

This thesis aimed to propose a point of view and initiate further discussion regarding the potential roles and purposes that designers might adopt in the urban context, where collaboration and participation have become viewed as fundamentals to solving complex societal challenges. The broad scope of the thesis topic and research questions required examining the subjects of design, urban design and participation from multiple points of view in the theoretical study. The aims of the theoretical chapters progressed from understanding the large scale societal changes that have led design to become applied in the urban context, to scrutinizing the notions of participation and co-design in both the contexts of design and cities. The theoretical study was complemented with a case study and fieldwork analysis conducted on the development of Konepaja, which aimed to demonstrate the findings of the theory and provide a more practical, situated perspective on the topic derived from personal experiences and observations. While it is acknowledged that the scope of both the thesis topic and research questions were excessively broad in terms of complying with the standards set for the extent of a Master's thesis study, the decision not to narrow or restrict the research questions was a deliberate one. The main reason for this is that the open-ended, wide perspective for approaching the complex subject matter inevitably required a broad and comprehensive understanding of the topic. As it was elaborated in the thesis, it was found out during the study process that understanding how designers could contribute in the urban context required immersing oneself in the concepts of participation and co-design, as participation is considered a prerequisite for conducting successful design projects in the urban context. While managing the broad scope of the thesis posed an undeniable challenge, ultimately the multiple viewpoints gained through

a thorough and multifaceted study enabled forming a comprehensive understanding of the thesis topic, and thus also answering the thesis questions in a well-informed and profound manner, with multiple perspectives considered. Another challenge that was faced in the study was the novelty of the thesis topic, and thus the lack of relevant literature that would directly provide research and knowledge regarding the application of design in the urban context. While the range of existing literature on participation in both the context of design and cities is extensive, it was found that the application of design and co-design to induce social change in the urban context and communities is still a relatively novel approach, which was perceived both as a challenge and an opportunity. In this sense, the conducted expert interviews on urban design and the application of participatory means and processes in the urban context provided practical, current and invaluable knowledge that significantly complemented the theoretical premise of the thesis. It is viewed that the multifaceted approach that combines a thorough literature review, interviews and fieldwork observations provides a holistic understanding of the subject at hand, that would not have been possible to obtain had parts of this thesis been left out.

The unconventional sequence of the thesis process, beginning with a collaborative project that ended up being revoked and consequently leading to fundamentally reframing the thesis topic and overall objectives in the middle of the process, resulted in an extremely challenging foundation to build the thesis upon. It could be stated that the process stemmed from learnings derived from failure, as the initial objectives set for the thesis were not accomplished due to the uncontrollable changes in circumstances in the collaborative project that was initiated with the entrepreneurs of Konepaja in fall 2017. Even though the changed situation enabled obtaining a more objective and critical perspective to the development process of Konepaja and proposing an alternative approach to the process by examining Konepaja as a case study, the process of rediscovering the leading thought of the thesis through theoretical study was found highly demanding. The open-ended approach, where the objectives of the study were clarified over time through the discoveries of the theoretical study and interviews, led to prolonging the thesis process and conducting a part of the study in obscurity. Thus, the process itself was found challenging and even frustrating at times, mainly due to the lack of clarity regarding the goals and the desired end results of the process. However, despite the challenges, the process was also found extremely educational professionally. The changes in circumstances after nearly a year of conducted fieldwork urged me to adapt and reflect on the failed process, with the findings of the fieldwork eventually leading me to the path to contemplate and redefine my own role as a designer working in the urban context. Completing the process has required persistence, determination and tolerance for obscurity, which are perhaps the most valuable personal learnings derived from the process. The numerous attended events, conducted discussions and interviews, and the broad range of literature reviewed for the thesis enabled me to discover a new perspective towards the obtained fieldwork findings, with the community of Konepaja found as key to developing the area in a socially sustainable manner. This key finding, together with the raised questions regarding my personal, presumed role as a designer in the development process, eventually led the thesis to focus on discovering the potential roles and purposes that designers might adopt in the urban context by means of collaboration and co-design. In hindsight, without the unforeseen changes in circumstances, I would have not had this opportunity to truly challenge myself through a theoretically oriented, open-ended thesis process, or to discover the newly found personal interest in interaction, participation and social design in the urban context. Hence, despite the nonlinear, demanding process with a number of encountered obstacles en route, the thesis process has simultaneously enabled continuous learning by urging me to adapt to unexpected changes and to explore inspiring professional terrains outside of my own comfort zone. The surprising findings and learnings have personally led me to discover my own voice as a designer, with a newly found determination to continue exploring co-design and urban design in practice in my professional career.

As it has been established, the aim of the thesis was not to provide any definitive, univocal answers on how a design process should be conducted, or what roles the design profession as a whole should adopt in contemporary society or even in cities. Rather, the findings of the thesis suggest that there is no one single way to define design as an approach or profession, as the capabilities and skills inherent in design profession pose a multitude of possibilities for various applications. Instead, the thesis aims to provoke further discussion on the future evolvement and applications of design as an approach, and the priorities, responsibility and purposes that guide the design practices. It is claimed that designers, as human-centered problem-solvers, can provide cities with relevant and invaluable capabilities, skills and an approach to addressing complex issues that may generate various types of value in the urban context. Furthermore, it is asserted that design, as an act of pursuing desirable change, can possess a significant power to steer the current development direction in cities and societies towards more sustainable realities. In light of the findings of the study conducted for this thesis, it becomes evident that striving for sustainability requires adopting a mindset that is participatory, and thus based on genuine collaboration. In this day and age, the circumstances for exploring the possibilities in integrating citizens in different types of development and decision-making processes, and enhancing those processes by means of co-design are favorable: the citizen society is more interconnected than ever, and the progress of technology has enabled the utilization and development of various channels and tools to enhance participation. Simultaneously, cities have shown eagerness to collaborate with designers in an increasing manner, and the recently launched model for interaction and participation in the city of Helsinki implies that there is an acknowledged, genuine need and demand for more participatory practices and processes in the urban context. This provides a fruitful framework for further research and exploration, especially in practice. Due to the lack of resources, there was no possibility to conduct a co-design process in practice together with all community actor groups of Konepaja as a part of this thesis. However, it is perceived that the thesis can provide a well-informed and thorough theoretical framework for other designers to continue the practical exploration and research on the topic of the application of co-design in aiding community-driven development processes in cities, and the measuring of the proposed implications that participation may induce on communities. Another interesting topic for further examination would be the development of practical tools and methods to enhance collaboration between citizens and cities, and to integrate citizen-led interventions and initiatives into official city planning practices in a more efficient manner. The thesis has shown evidence that there is an urgent need for tighter and more continuous collaboration between designers and cities, and that co-design as an approach can provide cities with the practical tools and means to develop more citizen-centered and socially sustainable urban environments and solutions. Therefore, it is suggested that the possibilities in integrating design and designers to improve interaction in the urban context is further examined, and that the prevailing development processes are critically approached with a participatory mindset. Ultimately, further exploring the possibilities of integrating co-design and participation as a mindset in design processes in the urban context can lead to harnessing the power of citizens to their full potential in co-developing more sustainable cities of the future.

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Figure 21: Levels of participatory design. Original source: Wulz 1986. Based on a visual interpretation of Nilsson et al. 2011, 236:

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Figure 26. Headlines regarding the negotiation process over ownership of Konepaja, 2016-2018. The referenced articles:

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